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This Issue in Brief

Workers in the motor-vehicle industry averaged about 70 cents per hour in 1934, but because of irregularity of employment their annual earnings from individual plants averaged only about $900. Relatively small additions to annual income were obtained by secondary employment, it being estimated that half the workers who were employed by motor-vehicle plants during the busy season of 1934 earned wages of less than $947 from all types of employment during the year. Page 521.

A survey by the Bureau of Labor Statistics of the expenditures of wage earners and lower-salaried clerical workers in New Hampshire covered 1,134 families in 11 representative communities. The survey showed a striking similarity as regards the percentage distribution of expenditures in the different towns, but significant differences as between families of different expenditure groups. Thus, the percentage of total expenditure for food was about one-fourth higher in the lower than in the higher expenditure group. Page 554.

A study of labor requirements in cement production, just made by the Bureau of Labor Statistics, indicates that for every 100 barrels of cement delivered to the site of construction, 20.6 man-hours of labor are created in producing and transporting the necessary raw materials, 55.0 man-hours are created in the cement mills and quarries, and 50.7 man-hours of labor are required to transport the cement from the mill to the construction site, making a total of 126.3 hours of employment for every 100 barrels of cement laid down at a construction project. Page 564.

Debts for clothing accounted for almost half of the wage executions served upon employees of 174 companies during a period of 3 months covered in a recent study conducted jointly by the Bureau of Labor Statistics and the Russell Sage Foundation (p. 578). About three-fifths of the wage executions were for amounts less than $25. There appeared to be little relation between the amount of the weekly wage and the size of the debt for which wage execution was resorted to. Approximately two-thirds of the wage executions in the sample were garnishments and one-third were wage assignments.

The 215 cooperative self-help organizations aided by Federal grant supplied their members with goods and services amounting to $1,216,647 during the first 10 months of 1935. Projects receiving Federal assist-

ance furnished 9,047,923 man-hours' work during the same period. Since August 1933 Federal grants to these organizations have totaled $2,831,413, of which 57.8 percent had been spent or obligated by the end of October 1935. It is calculated that for every $1 of Federal money $2.50 had been obtained in benefits. A considerable number of the members would have had to resort to relief, in the absence of the self-help activities. It is estimated that altogether these organizations have saved the taxpayers $2,278,287. Page 609.

The entrance wage rate of unskilled labor in the United States averaged 45.1 cents per hour in July 1935. There were wide differences between industries, automobiles having the highest rate (61.2 cents) of the industries covered and lumber the lowest (35.6 cents). Geographical differences were also very wide. The 1935 average hourly rate of 45.1 cents compares with a rate of 43.0 cents in 1934 and 43.7 cents in 1929. Page 698.

Codes for 11 service trades and industries were effective in Wisconsin at the end of 1935 under authority of the State recovery law, which has been upheld by the Wisconsin Supreme Court. The labor standards provided for the trades and industries covered closely resemble those of the N. R. A. and include provision for the right of workers to bargain collectively through representatives of their own choosing. The codes were established after public hearing and with the approval of the Governor. Page 628.

Costs of building the same type house vary from 18.0 to 26.8 cents per cubic foot in 27 cities for which figures have been compiled by the Federal Home Loan Bank Board. The Board will extend the coverage for which such figures will be computed and will publish them quarterly as a guide to trends in house-building costs within given areas. The preliminary results of the Board's study show considerable differences in the price of the specified type of house within the same State. Methods used in making the estimates have been outlined in the original study and are summarized on page 647.

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Wages, Ho Employment, and Annual Earnings in the Motor-Vehicle Industry, 1934

By N. A. TOLLES and M. W. LA FEVER, of the BUREAU OF LABOR STATISTICS

WORKERS in the motor-vehicle industry, including both automobile and automotive-parts plants, earned an average of approximately 70 cents an hour during 1934. Their annual earnings from individual plants, however, averaged less than $900. One-third of the motor-vehicle employees worked throughout the year. One-fourth of the employees had less than 6 months work; another quarter worked 6 to 10 months. Monthly data from the industry lead to the conclusion that employment fluctuated more severely during 1934 than during 1930, 1931, and 1935, but to approximately the same degree as during 1929 and 1932. The Bureau's information as to annual earnings and the distribution of employment relate only to the year 1934.

Relatively small additions to annual income were obtained by secondary employment. It is estimated that half of the workers who were employed by motor-vehicle plants during the busy season of 1934 earned wages of less than $947 from all types of employment during the year.

The employees of automotive-parts plants averaged less per hour, per week, and per year than did the employees of plants which manufactured finished automobiles. The highest average hourly and weekly earnings in the automotive-parts plants were received in Detroit, while the average hourly and weekly earnings of automobile workers were highest in the Michigan area outside of Detroit. Average annual earnings were highest in the Detroit plants of both divisions of the industry.

Scope and Method of Study

EARNINGS and hours of work in the motor-vehicle industry, including both automobile and body plants and automotive-parts plants, were analyzed intensively by the Bureau of Labor Statistics for the busy and the slack seasons of 1934. A pay-roll period in April 1934 was selected to represent conditions of peak production, while a pay-roll period in September of that year was selected as representative of slack production in the industry. The data chiefly used were obtained from 150 establishments which employed slightly more than one-half of the workers in the motor-vehicle industry. From these establishments pay-roll records for 160,584 employees in April and 102,025 employees in September were taken. This sample, covering approximately 30 percent of the employees of the industry, was carefully selected in order to give a proper representation to the various occupations and departments in each plant, to the different types of plants within the industry, and to the various regions in which motor-vehicle plants are located.

Considerable differences in earnings and employment have been found as between those plants which manufacture finished automobiles and trucks and those which manufacture the parts and equipment for automobiles. In the present study these two major branches of the industry have been treated separately by the Bureau of Labor Statistics for the first time. The term "motor-vehicle industry" is here used to denote the combination of these two divisions, represented in this study by 150 establishments. The term "automobile division" is reserved to describe the plants making finished vehicles, represented in this study by 68 establishments. The term "automotive-parts division" is used to denote the specialized producers of parts and equipment, both for new vehicles and for replacements. This division is represented by 82 establishments in the present study.[2] The distinct nature of these two divisions of the industry was recognized by the National Recovery Administration. The Automobile Manufacturing Code (no. 17) contained somewhat different labor standards from those of the Automotive Parts and Equipment Code (no. 105). The information given for the automobile division of the industry is believed to represent adequately those plants which operated under the Automobile Manufacturing Code. The sample obtained for the automotive-parts division is more representative of plants making original equipment than of the manufacture of replacement parts for automobiles.[3]

[2] The sample from the 68 automobile establishments covered 115,825 employees in April 1934 and 76,557 employees in September 1934. The sample from these 82 automotive-parts establishments covered 44,759 employees in April 1934 and 25,468 employees in September 1934.

[3] Half of the automobile-parts plants, which employed four-fifths of the workers in the plants chosen to represent the automotive-parts division, were definitely classified as makers of original equipment.

Detailed information as to wages and hours by district and by occupation will be provided in the full report of this survey and in the appendix to that report. Wages and hours in the Detroit district are presented separately from those for the Michigan district outside of Detroit.

A further departure in the present study is the publication of information as to the amount of employment during the year 1934 and the annual earnings of individual workers in the motor-vehicle industry. The primary information, obtained for 143,039 employees in 144 establishments, relates to the employment and annual earnings received by individuals from single establishments in the industry. Supplementary estimates are given, however, as to the annual earnings of these motor-vehicle workers from other employment in the industry and from all sources.[4]

Earnings and Hours in April 1934

FEW of the major industries of the United States paid their workers as much per hour during 1934 as did the motor-vehicle industry. In April 1934, the average earnings of the 160,584 workers studied were 68.9 cents an hour (table 1). This average includes the earnings of office workers which were made available for the first time by the 1934 study. Nearly one-fifth of this entire group of employees earned between 60 and 65 cents an hour, but substantial numbers also earned various amounts from 45 to 95 cents an hour.

Factory workers, who dominated the sample, earned an average of 69.8 cents an hour in April 1934. In the various months of 1934 and 1935, subsequent to the period covered by this field study, the average hourly earnings of factory workers in this industry stood from 2 to 5 cents above the level of April 1934 (tables 5 and 9).

Table 1.—Average Hourly Earnings, by Sex, of Factory and Office Employees in Motor-Vehicle Industry, April and September 1934

Sex and class of workers	Average hourly earnings (in cents)		Number of employees reported	
	April 1934	September 1934	April 1934	September 1934
All employees	68.9	70.7	160,584	102,025
Factory employees	69.8	71.8	149,503	92,486
Office employees	57.7	61.6	11,081	9,539
Males	70.7	72.4	146,450	93,990
Factory employees	71.0	72.4	139,792	88,153
Office employees	65.3	67.6	6,658	5,837
Females	48.9	50.2	14,134	8,035
Factory employees	50.5	47.6	9,711	4,333
Office employees	45.9	52.2	4,423	3,702

[4] The supplementary study of annual income from all sources was conducted by the Women's Bureau of the U. S. Department of Labor.

The working hours in the motor-vehicle industry averaged 38.6 per week during April 1934 (table 2). In spite of this low average, one-fifth of the workers were employed for 40 hours during this busy month of 1934. Factory workers averaged 38.5 hours in April 1934 and a slightly longer week during the previous month (tables 5 and 9). The hours of work in this industry have also been longer during the most active months of the 1935 season. However, less than 38.5 hours per week were worked in every month of 1934 except March and April.

An average of $26.60 per week was earned in April 1934 by the factory and office workers studied in the motor-vehicle industry (table 2). The most usual earnings in this month lay between $24 and $28 per week, but substantial numbers were found to be earning as much as $38 and as little as $16 per week. Factory workers, in April 1934, earned an average of $26.86 per week; these earnings were greater than at any other time during 1934, but slightly less than the best average of weekly earnings attained during 1935 (tables 7 and 10).

Table 2.—Average Weekly Hours and Earnings, by Sex, of Factory and Office Employees in Motor-Vehicle Industry, April and September 1934

Sex and class of workers	Average hours worked per week		Average weekly earnings	
	April 1934	September 1934	April 1934	September 1934
All employees	38.6	33.5	$26.60	$23.68
Factory employees	38.5	33.0	26.86	23.68
Office employees	40.2	38.4	23.17	23.65
Males	38.8	33.6	27.45	24.33
Factory employees	38.7	33.3	27.49	24.23
Office employees	40.7	38.1	26.56	25.78
Females	36.4	32.1	17.80	16.08
Factory employees	35.0	26.2	17.67	12.47
Office employees	39.4	38.9	18.08	20.30

Factory-Office Differentials in Earnings and Hours, April and September 1934

Office workers comprised 7 percent of the motor-vehicle employees studied in April 1934, but because they suffered less than factory workers from seasonal lay-offs, the office group formed 9 percent of the employees in the same factories during September of that year. Average hourly and average weekly earnings were less for office workers than for factory workers during the busy season of 1934. During the slack season of 1934, however, the average weekly earnings of office workers were practically identical with those of factory workers.

Although most office workers are paid by the week, it is possible to compare the equivalent hourly earnings of office workers with those of

factory workers. In April 1934, the average hourly earnings of all office workers in the industry were 57.7 cents, or 12.1 cents an hour less than the average for factory workers. In September of that year, office workers earned an average of 61.6 cents an hour, or 10.2 cents less than the average for factory workers. Two factors contributed to this differential in average hourly earnings: (1) A larger proportion of office workers than of factory workers were women. Women comprised approximately 40 percent of the office workers, both in April and September, but only 6.5 percent of the factory workers in April and 4.7 percent of the factory workers in September. (2) Both the men and the women who were office workers were paid somewhat less per hour than factory workers of each sex, at least during the busy season. The differential for males was 5.7 cents an hour in April and 4.8 cents in September. The differential for females stood at 4.6 cents an hour in April. In September, female office workers earned an average of 52.2 cents an hour, the differential of 4.6 cents an hour being in favor of office workers during the slack season.

The average weekly hours of office workers were slightly longer than those of factory workers during the busy season of 1934 and they declined much less than those of factory workers during the slack season of that year. In April the office employees worked an average of 40.2 hours, or 1.7 hours per week longer than factory workers. In September, office employees worked an average of 38.4 hours per week, or 5.4 hours per week more than the average working time of factory employees.

The average weekly earnings of all office employees in the industry stood at $23.17 in April. This was an average of $3.69 per week less than the average earnings of factory employees during the busy season. This weekly earnings differential against office workers during the busy season occurred only in the case of the men. Male office workers earned an average of $26.56 or 93 cents a week less than factory workers of the same sex, but the women who were office workers earned an average of $18.08 in April or 41 cents more than the female factory workers.

In September 1934, during the slack season, office workers earned approximately the same average amounts per week as did the factory workers, $23.65 for office workers as compared with $23.68 for factory workers. Office workers averaged more per week in September than in April, although their working hours had been somewhat reduced, whereas the weekly earnings of factory workers fell almost in proportion to the more severe reduction in the work which was made available to them. When the sexes are considered separately, it is seen that office workers actually earned more per week in September than factory workers of the same sex. Male office workers received an average of $25.78 per week or $1.55 more than male factory workers,

while female office workers earned an average of $20.30 per week or $7.83 more than female factory workers. The weekly earnings of the women who were office workers rose by an average of $2.22 between April and September 1934.

The averages just given apply to the combination of automobile and automotive-parts plants. Similar tendencies existed in each of the two divisions of the industry.

Comparison of Earnings and Hours During April 1934 in Automobile and in Automotive-Parts Plants

In April 1934 the employees of those plants which manufactured finished vehicles earned more per hour and worked a somewhat greater number of hours per week than did the employees of the automotive parts and equipment plants. These contrasts between the two divisions of the industry existed for workers of each sex and for office as well as factory workers [5] (table 3). It will be sufficient to illustrate the contrast by averages taken from all factory workers for the active month of April 1934.

In the automobile division, factory workers earned an average of 72.3 cents an hour during April 1934, while the corresponding earnings in the automotive-parts division of the industry were only 63.0 cents per hour. Average hourly earnings for this group were thus 15 percent higher in automobile than in automotive-parts plants. Automobile plants employed 72 percent of all the factory workers studied in the whole motor-vehicle industry. Hence the average hourly earnings in the motor-vehicle industry (69.8 cents) were dominated by the earnings shown for the plants which manufactured finished vehicles. Any average computed for the motor-vehicle industry as a whole tends to obscure the position of the smaller, but important, division which manufactures automotive parts and equipment only.

The difference in working time, as between the two divisions of the industry, was less marked than the difference in earnings in April 1934. Factory employees in automobile plants worked for an average of 38.9 hours per week while those employed by automotive-parts plants worked for an average of 37.3 hours per week.[6]

Automobile workers earned considerably more per week than did the workers in automotive-parts plants. The former group, as has

[5] Except that female office workers worked the same average number of hours in the 2 divisions of the industry during April 1934 and for a slightly higher average of hours in the automotive-parts division during September 1934.

The sample of automotive-parts plants included those making replacement parts as well as those making original equipment (see p. 523, note 3). Hourly earnings in plants making original equipment would compare more favorably with those in the automobile division than do the hourly earnings given for the automotive-parts division as a whole.

[6] Monthly reports to the Bureau indicate that the peak in working hours for 1934 was reached somewhat earlier in automotive-parts plants than in automobile plants. This difference in the timing of the seasons' as between the 2 divisions of the industry, may account largely for the difference in average working hours which was shown for April.

been seen, had the advantage of higher earnings per hour and in addition worked a slightly greater number of hours per week. Factory workers in the automobile division earned an average of $28.16 per week during April 1934. The corresponding group in automotive-parts plants earned an average of only $23.50 per week during this period. Workers in automobile plants thus had a 20 percent advantage over workers in automotive-parts plants, as regards average earnings during the week in the busy season of 1934.

Table 3.—Average Hourly Earnings, and Average Weekly Hours and Earnings of Office and Factory Employees, by Sex, in the Automobile and Automotive-Parts Divisions of the Motor-Vehicle Industry, April and September 1934

Sex and class of worker	April 1934						September 1934					
	Average hourly earnings		Average weekly hours		Average weekly earnings		Average hourly earnings		Average weekly hours		Average weekly earnings	
	Cars	Parts	Cars	Parts	Cars	Parts	Cars	Parts	Cars	Parts	Cars	Part
	Ct.	*Ct.*			*Dol.*	*Dol.*	*Ct.*	*Ct.*			*Dol.*	*Dol.*
All employees	71.5	62.0	39.0	37.5	27.90	23.23	73.0	63.4	34.1	31.6	24.89	20.04
Factory employees	72.3	63.0	38.9	37.3	28.16	23.50	74.2	64.1	33.7	30.9	24.98	19.78
Office employees	60.9	48.5	40.2	40.0	24.50	19.40	62.8	58.1	38.4	38.6	24.08	22.42
Males	72.7	64.9	39.1	38.0	28.39	24.69	74.2	66.1	34.1	32.0	25.29	21.16
Factory employees	73.0	65.1	39.0	37.9	28.45	24.68	74.6	66.3	33.8	31.6	25.22	20.95
Office employees	66.4	62.0	40.7	40.4	27.06	25.06	68.9	63.6	38.1	38.1	26.25	24.24
Females	51.9	46.0	38.2	34.9	19.82	16.40	53.1	46.0	34.6	29.1	18.36	13.40
Factory employees	51.8	45.0	37.0	34.0	19.16	15.30	54.3	42.7	28.0	25.0	15.21	10.69
Office employees	52.1	50.5	39.4	39.4	20.51	19.89	52.6	51.2	38.8	39.2	20.40	20.06

Recent Changes in Production, Employment, Earnings, and Hours

A SPECIAL tabulation of the Bureau's monthly reports from the motor-vehicle and other industries [7] makes possible the publication of monthly averages of employment, hourly earnings, weekly hours and weekly earnings for automobile manufacturing plants as distinct from automotive-parts plants. These results are available for January 1933 and subsequent months and they are discussed in this report in connection with the results of the periodic field studies and in connection with the available indexes of production for each of these divisions of the industry.

[7] The employment and pay-roll data, tabulated (tables 4 to 10 inclusive) as applying to the automobile and to the automotive-parts divisions separately, have been published hitherto in the Bureau's pamphlet on Trend of Employment under the caption "Automobiles" and as portions of a number of other industries.

Automobile Division

The number of workers employed by automobile plants increased more rapidly than did the number of automobiles produced from 1933 to 1934 but employment failed to respond to the further increases in production from 1934 to 1935. It is estimated that the automobile division of the industry employed as few as 162,200 factory workers in March and April 1933 (table 4). The number of these employees rose to a maximum for 1933 of 232,200 in September, the month after the Automobile Code was adopted, the average number for the calendar year being 195,300. By comparison a maximum of 368,600 factory workers were employed in April 1934 and an average number of 295,000 were employed during that calendar year. The increase in employment, as between the peak periods of 1933 and 1934, thus amounted to 51 percent. Meanwhile the total number of automobiles produced increased by 41 percent. The more rapid rate of increase in employment does not appear to have been due to a shortening of working hours (p. 533). It may have been due to inefficiencies resulting from the sudden increase of production, the uncertainty as to whether this increase would continue, and the resulting irregularity of employment during the 1934 season.

Since 1934 there has been little, if any, increase in the number of factory employees of automobile plants, in spite of the continued increase in the number of automobiles produced. During the 10-month production period ending in September 1935, the number of automobiles produced was 37 percent greater than in the preceding 12 months. The average number of factory employees was only 312,200, or 7.5 percent greater than in the 1933–34 production year. For the 6 months, April to September 1935, the average number of factory employees was 7 percent less than during the corresponding months of 1934, although automobile production was 13 percent greater during the latter period. In part, this lag of employment behind production may be due to the lengthening of the average number of hours in the working week which has taken place in the more recent period (page 533). The greater stability of employment during 1935 also limited the volume of employment.

Table 4.—Production and Employment of Factory Workers in Automobile Plants, January 1933 to September 1935

Period	Indexes (April 1934=100)		Estimated number of factory employees (thousands) [3]
	Production [1]	Factory employment [2]	
1933			
January	37	51	188.0
February	30	50	184.3
March	34	44	162.2
April	51	44	162.2
May	62	48	176.9
June	72	51	188.0
July	66	58	213.8
August	67	60	221.1
September	56	63	232.2
October	39	56	206.4
November	18	49	180.6
December	24	57	210.1
1934			
January	46	70	258.0
February	67	85	313.3
March	95	94	346.5
April	100	100	368.6
May	94	101	372.3
June	87	95	350.1
July	75	88	324.3
August	66	82	302.2
September	48	[4] 65	239.6
October	37	55	202.7
November	24	53	195.3
December	44	71	261.7
1935			
January	83	87	320.7
February	95	94	346.5
March	122	95	350.1
April	135	96	353.8
May	103	93	342.8
June	102	86	317.0
July	95	81	298.5
August	68	77	283.8
September	25	67	246.9

[1] Computed from figures on United States total production of passenger cars as reported in U. S. Department of Commerce, Survey of Current Business.

[2] Derived, except as noted, from U. S. Bureau of Labor Statistics, special tabulation of monthly percentage changes in employment of plants manufacturing finished automobiles. Pay-roll periods ending nearest the 15th of each month.

[3] Based on the number of 368,565 factory employees for April 1934 as compiled by the Division of Research and Planning, N. R. A. from monthly reports submitted by individual automobile manufacturers through the Automobile Manufacturers' Association. For all practical purposes, 100 percent of the automobile manufacturing concerns have submitted reports each month. Data cover production employees and auxiliary (maintenance and service) employees.

[4] Represents percentage change in factory employment from April to September 1934, as shown by Bureau's field study. Subsequent indexes were calculated from this figure.

The average hourly earnings of automobile workers were raised nearly to their predepression level by 1934. During the depression, the average hourly earnings of factory workers in automobile plants had fallen from 75 cents in 1928 [8] to approximately 56 cents by January 1933. The Automobile Manufacturing Code, approved on August 26, 1933, provided 6 minimum hourly rates for nonsalaried employees, varying from 43 to 35 cents an hour.[9] The average hourly earnings of factory workers, which had stood at 57.6 cents in July 1933 rose by 15 percent in 2 months, to reach 66.2 cents an hour by September of that year. Thereafter there was little change until April 1934, when average hourly earnings rose to 72.3 cents from 67.2 cents, largely as the result of an increase in minimum wage scales in some plants at this time (compare table 5).

[8] U. S. Bureau of Labor Statistics Bulletin No. 502: Wages and Hours of Labor in the Motor-Vehicle Industry, 1928.

[9] Graded according to sex of worker and population. Three minimum rates were also provided for salaried employees. (See p. 531, footnote 10.)

Table 5.—Estimated Average Hourly Earnings and Weekly Hours of Factory Employees in Automobile Plants, First Half of Each Month, January 1933 to September 1935

Period	Average hourly earnings		Average hours per week [1]	
	Index (April 1934=100)	Amount [2]	Index (April 1934=100)	Number [3]
		Cents		
1933				
January	77.3	55.9	91.5	35.6
February	79.0	57.1	80.1	31.2
March	79.4	57.4	74.7	29.1
April	79.4	57.4	89.8	34.9
May	79.1	57.2	106.1	41.3
June	79.4	57.4	104.3	40.6
July	79.7	57.6	98.1	38.2
August	87.9	63.6	98.5	38.3
September	91.6	66.2	86.8	33.8
October	91.8	66.4	84.4	32.8
November	93.7	67.7	79.5	30.9
December	91.4	66.1	78.5	30.5
1934				
January	90.6	65.5	83.7	32.6
February	91.1	65.9	98.7	38.4
March	93.0	67.2	104.2	40.5
April	100.0	72.3	100.0	38.9
May	101.4	73.3	91.6	35.6
June	100.8	72.9	84.3	32.8
July	103.9	75.1	73.0	28.4
August	104.4	75.5	84.1	32.7
September	[4] 105.3	[4] 76.1	(5)	(5)
October	104.4	75.5	[6] 82.0	[6] 31.9
November	104.9	75.8	81.5	31.7
December	102.9	74.4	93.6	36.4
1935				
January	101.4	73.3	93.6	36.4
February	100.3	72.5	104.7	40.7
March	101.0	73.0	104.7	40.7
April	102.1	73.8	107.3	41.7
May	102.5	74.1	98.8	38.4
June	107.5	77.7	90.9	35.4
July	107.6	77.8	88.6	34.5
August	108.4	78.4	87.0	33.8
September	107.5	77.7	88.6	34.5

[1] Derived from U. S. Bureau of Labor Statistics, man-hour reports of plants under the Automobile Manufacturing Code.

[2] Computed by applying monthly percentage changes to average of 72.3 cents as shown for all factory employees by field study for April 1934 by the U. S. Bureau of Labor Statistics.

[3] Computed by applying the monthly percentage changes to average of 38.9 hours as shown for all factory employees during April 1934.

[4] Average hourly earnings of factory employees for the last half of September, as shown by the Bureau's field study were 74.2 cents. The resulting index would be 102.6 (April 1934=100).

[5] Average weekly hours of factory employees during the last half of September 1933 were 33.7. Accepting this absolute figure, the index (April 1934=100) becomes 86.6. The figures derived from employers' reports have been omitted from the table because the two sets of man-hour reports from employers for the first half of September showed a serious discrepancy and the resulting average was out of harmony both with field-study results and with the hourly and weekly earnings for that month as reported by employers.

[6] Computed by applying the percentage change in average hours as shown by identical firms between August and October 1934.

Evidence drawn from a special study by the Bureau of Labor Statistics of five Detroit plants confirms the sharpness of the rise in hourly earnings at the time of the code, but suggests that the rise in the average was due to increases for workers previously receiving more than the code minimum rather than to any increase in hourly earnings which can be attributed directly to the code minimum itself (table 6). In various months of peak production just prior to the code, three-fourths of the workers in these five plants were earning less than 65 cents an hour. In the corresponding production period after the adoption of the code (April 1934) only one-seventh of the workers were earning less than this amount. The important change, however, was the decrease, in the proportion of workers earning between 55 and 65 cents an hour, from 36.1 percent to 10 percent of the entire group. The highest minimum wage specified by the code was 43 cents an hour. Even in the low-wage period before the code only 11.9 percent of the workers in these Detroit plants had earned less than 45 cents and only 5.2 percent of these workers had earned less than 40 cents an hour. Hence one must conclude that, in the important Detroit area at least, the minimum rates specified by the Automobile Code were low as compared with the lowest levels of hourly earnings paid by automobile plants. Part of the rise in average hourly earnings during 1933 may have been an indirect result of the code minimums, since the code specified that "equitable adjustments" should be made in all wage rates. The moderate reduction of hours which the code made necessary in some cases also provided the occasion for an upward revision of hourly rates whether these rates had been below or above the minimum applicable under the code. In any case, it is clear that the minimum standards of the Automobile Code were very modest as compared with the hourly earnings which had actually been paid before its adoption.[10]

[10] For this reason, no substantial problem arose as to compliance with code standards regarding hourly earnings. Noncompliance occurred in the case of less than half of 1 percent of the employees studied in April 1934, although as many as 3 percent of the small group of woman employees may have received substandard wages. It is not possible to state the degree of compliance with exactness, inasmuch as the provisions governing the wages of salaried employees were never defined by the National Recovery Administration. Minimum rates of $15, $14.50 and $14 were established for salaried employees, according to the population of the city where each plant was located. Some manufacturers interpreted this clause as requiring actual earnings not less than the prescribed figure in each class, regardless of the time actually worked. Others interpreted the requirement as referring to full-time earnings, necessitating a division of the specified weekly rate by the number of full-time hours in order to determine the true minimum on an hourly basis. However, no official decision was made as to whether these weekly rates should be divided by 40, 42, or 48. All three hourly maximums were stated in the code (see p. 532). It is to be noted that a weekly rate of $14, when divided by 48 provides a minimum hourly rate of only 29 cents.

Table 6.—Cumulative Percentage Distribution of Average Hourly Earnings in Automobile Plants in Detroit During 5 Production Periods, 1933–34

Average hourly earnings	Percent of employees receiving less than specified hourly earnings in—					
	Peak production periods			Slack production periods		
	Pre-code [1]	April 1934 (post-code)		Pre-code [2]	Post-code [3]	September 1934
	5 plants	5 plants	68 plants	5 plants	5 plants	67 plants
Total number of employees	2,768	3,062	60,992	2,476	2,412	45,415
Less than 35 cents	2.2	0.1	(4)	1.5	----------	(4)
Less than 40 cents	5.2	.1	0.5	3.7	0.1	0.4
Less than 45 cents	11.9	.3	2.0	9.1	1.4	1.4
Less than 50 cents	23.2	1.6	4.2	18.8	3.9	3.3
Less than 55 cents	38.7	4.9	8.3	38.2	6.8	6.4
Less than 60 cents	58.5	9.5	13.4	55.2	11.9	10.9
Less than 65 cents	74.8	14.9	41.3	70.1	17.2	32.6
Less than 70 cents	84.8	24.9	51.8	82.1	26.1	48.0
Less than 75 cents	90.6	39.0	61.0	90.3	41.4	56.1
Less than 80 cents	94.0	55.5	70.9	93.8	56.8	66.0
Less than 85 cents	96.5	67.6	79.3	96.2	70.2	75.0
Less than 90 cents	97.8	77.4	85.6	97.5	78.1	83.2
Less than 95 cents	98.7	85.1	90.4	98.7	84.9	89.1
Less than 105 cents	99.8	95.0	96.7	99.9	95.0	95.6
Less than 115 cents	99.9	98.1	98.5	100.0	98.0	98.0

[1] January to July 1933.
[2] May to July 1933.
[3] January to July 1934.
[4] Less than 1/10 of 1 percent.

Since the present field study was made in 1934, some further increases in average hourly earnings have occurred which have raised this average to the level of 1928. In April 1935, the most active month of the 1934–35 production season, factory workers earned an average of 73.8 cents, or 2 percent more than in April 1934. Further increases occurred in June 1935, as a result of a further rise of minimum wage scales in some plants. The average hourly earnings for the 10-month production period, December 1934 through September 1935, stood at approximately 75 cents as compared with an average of approximately 71 cents during the 1933–34 season of 12 months, December 1933 to November 1934.

The Automobile Manufacturing Code had relatively little influence over the hours of work in this division of the motor-vehicle industry. Average working hours fell from 46.9 per week in 1928 to 31.9 in 1932.[11] With the continued decline in production, average working time fell to as little as 29 hours per week in March 1933. The revival of activity increased the average time of factory workers to 41 hours per week in May 1933. No test of the immediate effect of the code is possible. The code set a maximum of 48 hours in any 1 week for all nonmanagerial employees earning less than $35 per week and further limited the average hours of processing employees to 40 hours [12] and of nonprocessing employees (indirect labor) to

[11] See Bureau of Labor Statistics Bulletin No. 502, and Monthly Labor Review, June 1933 (p. 1371).
[12] Limited to 35 hours, as an average, from Aug. 26, 1933 to Jan. 8, 1934.

42 hours.[13] Average working hours declined from 41 in May 1933 to 30.5 in December of that year, but this is attributable to the seasonal decline in production rather than to code restrictions. With the seasonal increase in production, average working time increased to a peak of 40.5 hours per week in March 1934, or only slightly less than the longest working time during 1933 prior to the code.[14] During the whole calendar year 1934, the average working time was approximately 34.5 hours per week or nearly the same as the average time worked during the calendar year 1933 (34.8 hours).

Since 1934 there has been a distinct lengthening of average weekly hours of automobile workers. In April 1935 an average of 41.7 hours was worked, as compared with 38.9 hours in April 1934 and 40.5 hours during March 1934, the month showing the highest average weekly hours during that year. During the 10-month production period, December 1934 to September 1935, an average of 37.3 hours was worked by automobile plants, as compared with an average of 34 hours during the 12-month production period of 1933–34 (December 1933 through November 1934).

Although the Automobile Manufacturing Code necessitated very little shortening of the working week, it may have prevented a return to the longer work schedules of the predepression period. Notwithstanding the recent increases in weekly hours, the working week remains distinctly shorter in 1935 than in 1928. The longest working week of 1935 (41.7 hours in April) was 5 hours shorter than the average working time during three active months (September to November) of 1928.

The average weekly earnings of factory workers in automobile plants have risen since the original adoption of the code, but even the increases since 1934 have not sufficed to bring the level up to that of 1928. Between 1928 and 1932 average weekly earnings fell from $35.14 to $20. In March 1933 automobile workers earned an average of only $17.32 per week (table 7). The revival of production prior to the code increased average weekly earnings to $24.39 by August 1933. During the first months of operation under the code, increases in average hourly earnings were more than offset by the seasonal shortening of working hours. By April 1934, however, average weekly earnings had increased to $28.16, and a year later the

[13] These latter averages were to be enforced over an 8-month period.

[14] The problem of compliance with these code requirements was not great. Less than 2 percent of all employees were found to be working more than 48 hours in April or September 1934 and some of these individuals may have been exempted because of earnings of $35 or more per week. No test of compliance with the 40- or 42-hour averages was possible without a complete audit of the working time of each individual for an 8-month period. Compliance with these average-hour standards could not have been difficult, however. The average working time of factory employees during the 8-month period, January to July 1934, was less than 34 hours per week. Yet this low average for the period was consistent with the employment of 42.3 percent of all automobile workers for more than 40 hours during the pay-roll period studied in April 1934.

average had risen to $31.03. During the 10-month production period ending in September 1935 the unweighted average of weekly earnings stood at $28.21 as compared with $24.28 per week during the 12-month 1933–34 production season, ending in November 1934, to which period the Bureau's field study applied.

Table 7.—Estimated Average Weekly Earnings of Factory Employees in Automobile Plants, First Half of Each Month, January 1933 to September 1935

Month	Index of average weekly earnings (April 1934=100)[1]			Average weekly earnings[2]		
	1933	1934	1935	1933	1934	1935
January	71.1	76.3	95.4	$20.02	$21.49	$26.86
February	64.1	89.8	105.8	18.05	25.29	29.79
March	61.5	96.5	106.5	17.32	27.17	29.99
April	72.3	100.0	110.2	20.36	28.16	31.03
May	84.5	92.9	101.8	23.80	26.16	28.67
June	83.3	85.1	98.4	23.46	23.96	27.71
July	78.3	76.0	95.9	22.05	21.40	27.01
August	86.6	88.0	95.2	24.39	24.78	26.81
September	79.1	85.8	95.7	22.27	[3] 24.16	26.95
October	76.5	[4] 85.4	----------	21.54	[4] 24.05	----------
November	73.8	86.0	----------	20.78	24.22	----------
December	72.8	96.7	----------	20.50	27.23	----------

[1] Derived from U. S. Bureau of Labor Statistics total sample of plants under the Automobile Manufacturing Code.
[2] Computed by applying the index given to the average of $28.16 per week as shown for all factory employees by field study for April 1934 by the U. S. Bureau of Labor Statistics.
[3] Average shown by field study for last half of September 1934 was $24.98.
[4] Derived from percentage change in average weekly earnings shown by all firms reporting in September and October whether identical or not. Percentage change shown by identical firms showed an impossible result.

Automotive-Parts Division

Employment in automotive-parts plants increased even more rapidly than did the shipments of parts from 1933 to 1934, at the time when working hours were being reduced (table 8). Since 1934, however, there has been a much less rapid increase in employment than in automotive-parts shipments. During the 12-month production year of 1933–34 (December 1933 through November 1934) an average of 79,300 factory workers appears to have been employed. In the subsequent 10-month production season, December 1934 to August 1935, an average of 106,800 factory workers was employed. Comparing the 2 years it will be seen that average employment increased by 9.8 percent, while shipments increased by 28 percent.

Table 8.—Automotive-Parts Shipments, and Employment of Factory Workers by Automotive-Parts Plants, January 1933 to November 1935

Year and month	Indexes (April 1934=100)		Thousands of factory employees (estimated for first half of each month) [3]	Year and month	Indexes (April 1934=100)		Thousands of factory employees (estimated for first half of each month) [3]
	Shipments [1]	Factory [2] employment (first half of each month)			Shipments [1]	Factory [2] employment (first half of each month)	
1933				1934—Continued			
January	40	45.2	58.7	July	78	73.1	94.9
February	39	44.5	57.7	August	72	72.4	94.0
March	32	39.7	51.5	September	64	62.9	81.7
April	50	38.4	49.8	October	62	56.3	73.0
May	56	42.7	55.5	November	61	57.2	74.3
June	64	47.4	61.5	December	78	69.8	90.6
July	60	52.9	68.6	1935			
August	63	56.1	72.9				
September	58	56.9	73.9				
October	46	51.9	67.4	January	89	81.3	105.6
November	44	50.8	65.9	February	97	91.1	118.2
December	46	58.6	76.0	March	106	93.3	121.1
1934				April	116	88.9	115.4
				May	104	87.4	113.5
				June	94	80.6	104.7
January	61	68.7	89.3	July	90	76.1	98.8
February	83	81.9	106.3	August	72	71.6	92.9
March	111	94.8	123.1	September	83	76.4	99.1
April	100	100.0	129.8	October	104	85.8	111.3
May	91	93.9	121.8	November	106	93.0	120.7
June	83	79.6	103.3				

[1] Adapted from U. S. Department of Commerce, Survey of Current Business, index of shipments of original equipment and replacement parts.

[2] Derived from U. S. Bureau of Labor Statistics, Trend of Employment reports. Chain index of percentage changes in employment as shown by all reporting employers formerly operating under the automotive-parts code, as calculated by the N. R. A. Division of Review.

[3] Computed by applying index of employment to estimate of 90,629 employees for December 1934. Estimate derived in two stages: (1) Aggregate employment in each census industry containing automotive-parts plants was computed from 1933 census figures by applying Bureau of Labor Statistics trend of employment indexes; (2) The percentage of automotive-parts workers in each of these industries in December 1934, as disclosed by N. R. A. questionnaire for that month, was applied to the employment aggregate for these industries, as defined by the Census.

The average hourly earnings of factory employees in automotive-parts plants rose from 50 cents during the first half of 1933,[15] to 67 cents during the production season December 1934 through August 1935. Three-quarters of this increase had taken place by April 1934 when the Bureau's field agents found the average to be 63.0 cents an hour. The most pronounced rise, from 50.7 to 56.5 cents an hour, occurred during the period of the President's Reemployment Agreement, in the single month between July and August 1933. Following this increase of nearly 6 cents an hour, a further increase of only 2 cents occurred between October and November 1933, when the

[15] Separate data are not available for automotive-parts workers for periods prior to January 1933.

code first became officially applicable.[16] Gradual increases in the subsequent months of 1933, 1934, and 1935 have raised the average of hourly earnings by 8 cents an hour.

A very decided shortening of the hours of work occurred in automotive-parts plants between 1933 and 1934, in contrast with the relatively unimportant change in hours in the automobile plants during this period. In June 1933, a month of peak production before the codes, automotive-parts plants worked their factory employees an average of nearly 45 hours per week. By August 1933, when shipments were nearly at the June level, average weekly hours had fallen to 37½. It will be noticed that the essential change took place under the President's Reemployment Agreement before the formal adoption of the Automotive Parts Code.[17] The longest working week recorded during 1934 occurred in March, when the average hours of factory workers were 38.8 per week. In 1935, average hours of 36.7 per week were recorded in February, this being the highest average in any month of the production season from December 1934 through August 1935. Automotive-parts plants, in contrast to plants in the automobile division of the industry continued to shorten hours in 1935. However, the average working time during the whole production season of 1934-35 remained approximately the same as during the season December 1933 through November 1934, because of the greater stability of production in the later year.

[16] The Automotive Parts and Equipment Code was approved by the President on Nov. 8, 1933. The code itself provided basic hourly minimums of 40 cents an hour for men and 35 cents an hour for women, who were directly engaged in the processing of products. However, if workers of any class had been paid less than the rates specified in 1929, the men might be paid as little as 35 cents and the women as little as 30⅝ cents an hour. Nonprocessing employees were to be paid a minimum "weekly rate" of $15, but the hourly equivalent of this rate was never specified officially. The code authority issued a bulletin, however, which interpreted this weekly rate to require a minimum of 37½ cents an hour. Compliance with the Automotive Parts Code was less universal than was compliance with the Automobile Code, but no exact statement can be made in view of the indefinite nature of these code requirements.

Three percent of the employees studied in April and 2.3 percent of the employees studied in September 1934 were found to be earning less than 40 cents, 35 cents, and 37½ cents an hour, respectively, in the case of male processing, female processing, and nonprocessing employees. If it is assumed that no violation of the code occurred in any case where processing employees received as little as 35 cents for males and 30⅝ cents for females, the percentage of violation would have been 1.7 percent in April and 1.4 percent in September. Other possible interpretations of the code requirements would result in subminimum payments to as many as 9.6 percent or as few as 0.2 percent of the employees studied in April and September 1934.

[17] The Automotive Parts Code set a maximum of 48 hours in any 1 week for all but the maintenance forces, and an average of not more than 40 hours for processing or 42 hours for salaried and office workers. This limit on average hours applied to annual periods after March 1934. From 2.9 percent (April) to 2.1 percent (September) of the automotive-parts employees were found to be working more than 48 hours per week in 1934. These percentages suggest that there was very little noncompliance with the 48-hour maximum, in view of the exemption of maintenance forces. The extent of noncompliance with the average-hour requirements was also probably small. During the 6-month period, April to September 1934, the average working time of factory workers in this division was less than 31 hours per week, in spite of the fact that 20.3 percent of all employees studied in April were employed for more than 40 hours per week.

Table 9.—Estimated Average Hourly Earnings and Weekly Hours of Factory Employees in Automotive Parts Plants, First Half of Each Month, January 1933 to September 1935

Year and month	Average hourly earnings		Average hours per week [1]		Year and month	Average hourly earnings		Average hours per week [1]	
	Index (April 1934=100)	Amount [2]	Index (April 1934=100)	Number of hours [3]		Index (April 1934=100)	Amount [2]	Index (April 1934=100)	Number of hours [3]
1933		Ct.			1934—Continued		Ct.		
January	78.4	49.4	116.8	43.6	June	102.5	64.6	84.8	31.6
February	81.2	51.2	104.4	38.9	July	107.2	67.5	78.5	29.3
March	81.5	51.3	78.3	29.2	August	106.3	67.0	80.8	30.1
April	80.3	50.6	102.1	38.1	September	106.9	[4] 67.3	67.5	[5] 25.2
May	79.4	50.0	118.5	44.2	October	109.3	68.9	74.3	27.7
June	78.6	49.5	120.1	44.8	November	107.2	67.5	80.0	29.8
July	80.5	50.7	116.6	43.5	December	103.8	65.4	93.0	34.7
August	89.7	56.5	100.9	37.6					
September	92.4	58.2	91.2	34.0	1935				
October	91.9	57.9	87.3	32.6					
November	94.7	59.7	95.3	35.5	January	104.8	66.0	94.0	35.1
December	96.1	60.5	101.3	37.8	February	105.3	66.3	98.4	36.7
					March	105.3	66.3	95.8	35.7
1934					April	106.2	66.9	95.0	35.4
					May	106.4	67.0	91.7	34.2
January	96.1	60.5	94.2	35.1	June	107.6	67.8	87.4	32.6
February	95.1	59.9	103.0	38.4	July	108.5	68.4	83.5	31.1
March	95.3	60.0	104.1	38.8	August	108.2	68.2	84.8	31.6
April	100.0	63.0	100.0	37.3	September	107.7	67.9	94.0	35.1
May	103.7	65.3	88.2	32.9					

[1] Derived from U. S. Bureau of Labor Statistics man-hour reports of plants under the Automotive Parts Code.

[2] Computed by applying the monthly percentage changes to the average of 63.0 cents as shown for all factory employees by field study for April 1934 of the U. S. Bureau of Labor Statistics.

[3] Computed by applying percentage changes to average of 37.3 hours for factory employees during April 1934.

[4] Average shown by field study for last half of September 1934 was 64.1 cents per hour for factory employees.

[5] Average shown by field study for last half of September 1934 was 30.9 hours per week for factory employees.

The average weekly earnings of factory workers in automotive-parts plants fell to a low point of $15.44 in March 1933. Increased working time raised this average to $22.54 by June 1933, before any decided increase in average hourly earnings had occurred. The initial shortening of hours, between June and August 1933 was approximately offset by the increase in average hourly earnings, so that average weekly earnings remained essentially unchanged. By April 1934, 1 of the 2 months intensively surveyed by this study, average weekly earnings of factory workers in the parts plants had risen to $23.50. The highest average of weekly earnings subsequently recorded was the average of $24.58 per week earned in February 1935, approximately $1 more per week than the best earnings of 1934. The unweighted average of weekly earnings was $23 during the production season, December 1934 to August 1935, or approximately $2 more per week than the average earnings of the season from December 1933 to November 1934 (table 10).

Table 10.—Estimated Average Weekly Earnings of Factory Employees in Automotive-Parts Plants, First Half of Each Month, January 1933 to September 1935

Month	Index of average weekly earnings (April 1934=100) [1]			Amount of average weekly earnings [2]		
	1933	1934	1935	1933	1934	1935
January	90.5	90.2	99.6	$21.27	$21.20	$23.41
February	84.3	97.3	104.6	19.81	22.87	24.58
March	65.7	98.8	101.9	15.44	23.22	23.95
April	84.1	100.0	101.8	19.76	23.50	23.92
May	95.4	92.2	98.5	22.42	21.67	23.15
June	95.9	86.8	94.3	22.54	20.40	22.16
July	94.7	83.7	90.7	22.25	19.67	21.31
August	90.9	86.6	91.9	21.36	20.35	21.60
September	84.3	72.9	101.2	19.81	[3] 17.13	23.78
October	80.1	81.7	.....	18.82	19.20	.....
November	89.8	86.8	.....	21.10	20.40	.....
December	95.4	97.6	.....	22.42	22.94	.....

[1] Derived from U. S. Bureau of Labor Statistics, sample of plants under the Automotive Parts Code.
[2] Computed by applying the index given to the average of $23.50 per week as shown for all factory employees by field study for April 1934 by U. S. Bureau of Labor Statistics.
[3] Average shown by field study for last half of September 1934 was $19.78.

Seasonal Movements

WIDE seasonal swings in production, employment, and earnings constitute one of the outstanding problems of the motor-vehicle industry. During the years 1923 to 1934 production of automobiles in the slackest month of the year was 22 to 81 percent less than in the peak month. The production of automotive parts is somewhat more regular, because the industry has replacement as well as original equipment business. The original equipment business in the production year 1933–34 was more irregular than automobile production.[18]

Aggregate man-hours worked move less than production, but the fluctuations of business are such as to require large readjustments in average hours and in the number of workers. Thus in 1934 factory employees in the automobile division averaged 40.5 hours per week in March and 31.7 hours in November. In automotive parts the high average for the year was 38.8 hours per week in March and the low was 27.7 hours in October.

Curtailment of hours cannot be used to meet fully the problem of seasonal swings. During 1934 fluctuations in employment were greater than fluctuations in hours. In the automobile division of the industry, the 22 percent decline in average hours from highest to lowest months during 1934 is to be compared with a 48 percent decline in the numbers of workers employed between the months of greatest and least employment during that year. Between April and September 1934 the automobile plants made more than three-fourths of their

[18] For the period September 1933 to August 1934 the monthly average production of automobiles was 36 percent less than production in the peak month. Original equipment averaged 41 percent less than the peak, and replacement parts averaged 16 percent less.

slack-season curtailment by the laying off of workers and less than one-fourth by reducing the working time of operatives. Forge-shop employees had their working hours reduced by 28 percent while the number of such employees was cut by 40 percent. On the other hand, punch and press operators obtained a reduction of only 12 percent in average working hours while the number of such workers was reduced by 59 percent between these two months of 1934. In the automotive-parts division, the 35 percent decline in average hours during 1934 may be compared with a 44 percent decline in employment between the extreme months of that year.

The data indicate that flexible hours were used less in 1934 than in other years to meet the problem of seasonal fluctuations, in spite of the unusual fluctuation of employment during the 1934 season. The fall in average hours was reduced from 26 percent in 1933 to 22 percent in 1934 and to 19 percent in 1935.[19]

From 1923 to 1934 the number of factory workers employed by the motor-vehicle industry in the most idle month was 17 to 43 percent less than in the busiest month of each year. The average fall in employment between peak and slack months was about 30 percent.[20] In 1934, the corresponding decline in employment amounted to 42 percent.

Beginning in 1935, the industry attempted to stabilize employment by moving forward the date for the introduction of new models. In spite of the severe curtailment in production which resulted in September 1935, the extreme decline in employment amounted to only 30 percent in the automobile division and to 23 percent in the parts division. More striking was the maintenance of average employment during the 1934–35 season to within 88 percent of the monthly maximum in automobile plants as compared with 78 percent in 1933–34 and to within 90 percent of the monthly maximum in parts plants, as compared with 85 percent in 1933–34. However, the initial effect of the new policy was to compress the 1934–35 season into a 10-month period, and for this reason its effect over a full 12-month production year still remains to be seen.[21]

Seasonal decreases in production are normally accompanied by a slight rise in the average of hourly earnings in the motor-vehicle industry, but the shortening of working hours greatly reduces the average of weekly earnings.

[19] In the automotive-parts division, the range of weekly hours changed in close relationship to changes in the range of monthly shipments: Minimum weekly hours were 27 percent less than the maximum in 1933, 35 percent less than the maximum in 1934, and 15 percent less than the maximum in 1935.

[20] Derived from U. S. Bureau of Labor Statistics Bulletin No. 610 (Revised Indexes of Factory Employment and Pay Rolls, 1919 to 1933) and reports on Trend of Employment.

[21] Office workers are affected very little by seasonal fluctuations in employment. A special study of employment in the plants represented by the field study shows that the average employment of office workers during the period, September 1933 through August 1934, was 93 percent of the monthly maximum while the corresponding average for factory employees in the same plants was 76 percent of the maximum for the period.

Between April and September 1934, the average hourly earnings of all the workers studied in the motor-vehicle industry rose from 68.9 to 70.7 cents. This rise in the average was due largely to the laying off of the lower-paid workers, rather than to an increase in the hourly earnings of individual workers. Between these 2 months there was a selective reduction in the number of employees of 36 percent. Men earning 35 to 65 cents an hour constituted 46.9 percent of the male workers in the industry in April and only 40.8 percent in the slack season. Evidence of selective lay-off that has the effect of raising the average without any general increase for individual workers is afforded by a special study of five Detroit automobile plants made by the Bureau for periods in 1933 prior to the adoption of the code. No marked increase in rates was in progress. Yet in comparing the distribution of earnings in a slack season with earnings in a busy month, it was found that the proportion earning less than 50 cents declined from 23.2 percent at the peak to 18.8 percent and that the proportion earning more than 65 cents rose from 25.2 to 29.9 percent (table 6).

An increase in the average of hourly earnings occurred between April and September 1934, within both the automobile and automotive-parts divisions of the industry. In each case the amount of the increase was slight. In automobile plants the average hourly earnings of all workers (including office employees) rose from 71.5 cents to 73 cents, while in automotive-parts plants the corresponding rise was from 62 cents to 63.4 cents per hour. In both divisions some further increase took place in the months following September 1934 when production was further reduced and in both divisions of the industry the averages of hourly earnings fell slightly in succeeding months as seasonal increase occurred in production and employment.[22]

Increases in average hourly earnings as production slackens in the motor-vehicle industry are not great enough to offset the effect on weekly earnings of the decline in average working hours. Between April and September 1934 the average weekly earnings of all the employees studied in the motor-vehicle industry fell from $26.60 to $23.68. Office workers had a practically stable average of weekly earnings.

The decline from April to September 1934 in average weekly earnings was more severe in the automotive-parts than in the automobile division of the industry. In automobile plants, the average weekly earnings of all employees fell by 10.8 percent, from $27.90 in April to $24.89 in September. In the automotive-parts plants the corresponding decrease amounted to 13.7 percent, average weekly earnings of all employees being $23.23 in April and $20.04 in September 1934.

[22] See tables 4, 5, 8, 9 (pp. 529, 530, 535, 537). Attention is called to the fact that average hourly earnings, as stated in these tables, apply only to the factory group of employees.

Annual Employment and Earnings of Individual Workers, 1934

ALTHOUGH the motor-vehicle industry pays its employees unusually large amounts per hour, many motor-vehicle workers earn relatively small amounts per year. The irregularity of employment, just described, results in large amounts of lost time for individual workers. Since the year 1934 showed a somewhat unusual degree of seasonal fluctuation, it probably affords a rather extreme example of lost time by workers in this industry.

Employment and Earnings Obtained from Individual Plants

The records of 143,039 motor-vehicle employees (including office workers as well as factory employees) who were employed during April 1934 show that these workers obtained an average of 37.7 weeks of employment from those plants during the calendar year 1934. This entire group earned an average of exactly $900 during the year. Male workers in the industry worked for an average of 37.8 weeks and earned an average of $923 in these plants, while 11,540 of the group who were women worked for an average of 37.1 weeks and earned an average of $647. The sample taken for the female group probably overstates their actual earnings during the year due to a lack of annual records for many of the lowest-paid groups of women. The actual earnings of men averaged $342 less than could have been earned had these men worked steadily during the year with no greater weekly earnings than were received during the slack month of September 1934. The average annual earnings of the women were $189 less than might have been earned from steady employment at weekly earnings no greater than were earned by women in September. The 7,593 women studied who were factory workers obtained an average of 32.7 weeks of employment and earned an average of $504 per year.

Workers in the automobile division of the industry worked somewhat more steadily than did workers in the automotive-parts division during the year 1934 and the automobile workers earned considerably larger amounts per year. Employees of both sexes in the automobile plants (107,773 studied) worked an average of 38.1 weeks while the corresponding group in automotive-parts plants (35,266 studied) worked an average of 36.4 weeks during the year for their respective peak-season employers. The average annual earnings of this automobile group were $941 in contrast to the average of $777 earned by automotive-parts employees. The men employed by automobile plants (101,617 studied) worked an average of 38.1 weeks during the year and earned an average of $953, while the men employed by automotive-parts plants worked an average of only 36.8 weeks and earned an average of only $819. In automobile plants the female

workers were employed mainly in the offices, while male workers were predominantly in the factories. The women as a class thus worked more regularly than the men. In 1934 the women in automobile plants (11,540 studied) averaged 39.2 weeks of employment, as compared with 38.1 weeks for male automobile workers and as compared with 34.6 weeks for female workers in automotive-parts plants (5,384 studied). The average annual earnings of women from the automobile plants studied were $736, while from the automotive-parts plants this female group earned an average of $545 during the year. Woman factory workers in automobile plants (3,173 studied) were employed for an average of 33.4 weeks and earned an average of $560 during 1934. In automotive-parts plants, the 4,420 woman factory workers studied obtained an average of 32.2 weeks of employment and earned an average of $464 from these plants.

Table 11.—Distribution of Employment, by Sex, During 1934, in Automobile and Automotive-Parts Plants

Period of employment	Males		Females	
	Automobile plants	Automotive-parts plants	Automobile plants	Automotive-parts plants
Less than 2 weeks	46	18	2	0
2 and less than 4 weeks	365	165	14	24
4 and less than 6 weeks	941	292	36	48
6 and less than 8 weeks	1,397	358	86	69
8 and less than 10 weeks	1,586	577	85	146
10 and less than 12 weeks	1,660	773	95	188
12 and less than 14 weeks	2,014	774	96	200
14 and less than 16 weeks	2,190	828	108	235
16 and less than 18 weeks	2,586	903	139	187
18 and less than 20 weeks	2,771	851	125	173
20 and less than 22 weeks	2,820	990	159	203
22 and less than 24 weeks	2,719	1,049	165	180
24 and less than 26 weeks	2,918	915	180	121
26 and less than 28 weeks	2,857	818	195	136
28 and less than 30 weeks	2,660	709	167	112
30 and less than 32 weeks	2,758	774	164	134
32 and less than 34 weeks	2,536	668	158	123
34 and less than 36 weeks	2,649	658	171	160
36 and less than 38 weeks	2,894	916	207	185
38 and less than 40 weeks	3,066	845	183	190
40 and less than 42 weeks	3,170	840	189	211
42 and less than 44 weeks	3,814	962	193	167
44 and less than 46 weeks	4,018	759	225	165
46 and less than 48 weeks	5,248	1,062	238	236
48 and less than 50 weeks	6,217	1,773	250	321
50 and over	35,717	10,605	2,526	1,465
Total	101,617	29,882	6,156	5,384

More important than average annual employment and earnings is the distribution of work and earnings among individual workers. Approximately one-third of the workers were employed continuously (50 weeks or more per year) in both the automobile and the automotive-parts divisions of the industry. The remaining two-thirds of the workers were employed in substantial numbers for each period from 6 weeks to 50 weeks during the year. Four times as many workers were employed for periods of 48 to 50 weeks as were employed for periods of 6 to 8 weeks. Nevertheless, for the majority group of irregularly employed workers, there was no period of employment which occurred with outstanding frequency and hence no basis for definite expectation as to the amount of work which might be obtained. In the automobile division one-quarter of the men were employed for less than 27 weeks of the year by the plants which engaged them in April; one-quarter of the women were engaged for less than 29 weeks. In the automotive-parts division one-quarter of the men secured less than 24 weeks and one-quarter of the women less than 21 weeks of employment during the year from the plants which employed them in April 1934 (table 11).

Annual earnings in the motor-vehicle industry conformed to type more than did the employment periods of these same workers. The annual earnings most frequently received by men in the automobile division lay between $1,100 and $1,200 (table 12). Yet one-quarter of the men received less than $590 during 1934 from the plants which employed them in April of that year. Women employed by automobile plants in April receiving from $700 to $800 during the year formed the most important annual earnings group. One-quarter of all the women studied received less than $454 from these plants. In the automotive-parts division the most common earnings of men lay between $900 and $1,000 per year, but less than $350 per year was earned from the plants studied by one-quarter of the men. Women earning from $700 to $800 during 1934 formed the largest annual earnings group, but almost as large a number earned from $200 to $300 during the year. One-quarter of the women studied who were employed by automotive-parts plants in April 1934 earned less than $285 during the year as the result of work in those plants.

Irregularity of employment affected highly paid workers almost as severely as those who earned the smaller amounts per hour. The tendency to employ the highly paid operatives more regularly was very slight. Very great differences were discovered, however, in the regularity of employment and the annual earnings provided by different plants within the industry.

Table 12.—Distribution of Earnings, by Sex, During 1934, in Automobile and Automotive-Parts Plants

Annual earnings	Males		Females	
	Automobile plants	Automotive-parts plants	Automobile plants	Automotive-parts plants
Less than $100	1,529	748	133	219
$100 and less than $200	3,217	1,633	295	496
$200 and less than $300	4,565	2,007	372	619
$300 and less than $400	5,201	2,221	450	599
$400 and less than $500	5,614	2,311	534	570
$500 and less than $600	5,921	2,022	546	541
$600 and less than $700	5,943	1,836	532	502
$700 and less than $800	6,478	2,099	627	632
$800 and less than $900	6,561	2,229	585	386
$900 and less than $1,000	7,431	2,469	538	243
$1,000 and less than $1,100	8,065	2,307	491	161
$1,100 and less than $1,200	9,356	1,924	443	84
$1,200 and less than $1,300	9,275	1,656	250	95
$1,300 and less than $1,400	6,683	1,274	169	40
$1,400 and less than $1,500	4,629	874	87	26
$1,500 and less than $1,600	3,415	616	45	12
$1,600 and less than $1,700	2,484	484	34	8
$1,700 and less than $1,800	1,761	356	20	6
$1,800 and less than $1,900	1,103	251	5	3
$1,900 and less than $2,000	717	160	----------	----------
$2,000 and over	1,669	405	----------	----------
Total	101,617	29,982	6,156	5,386

Annual Earnings From the Industry and From All Sources

The annual earnings data, just described, cover only the income from the specific plants surveyed, by the individuals employed therein. Such information fails to give a complete picture of the earnings of these persons, since the workers studied might supplement their income by employment outside the plants which were surveyed. A special field study was therefore undertaken by the Women's Bureau of the Department of Labor to determine the value of such supplementary income. Lists of motor-vehicle workers employed in April 1934 were supplied by the Bureau of Labor Statistics for use by agents of the Women's Bureau to locate the homes of 3,538 workers in Detroit, Cleveland, Flint, and Kenosha.

The schedules obtained from these family visits provided two items of information which are relevant to a discussion of wages in the motor-vehicle industry: (1) Annual income of the worker from all employment in the industry, whether from the selected plants or not and (2) annual income of these workers obtained from all employment whatsoever, whether derived from the motor-vehicle industry or not.[33] By means of this information it was possible to estimate the amount of such annual incomes of all workers in the motor-vehicle industry.[34]

[33] Information was also obtained as to total family income and family composition. Certain parts of this information will be treated in the bulletin of which this article is a summary. More extended treatment of this information will be discussed in a forthcoming report by the Women's Bureau.

[34] It should be noted that the following estimates apply only to income from wages and salaries. No account was taken of nonwage income from farms nor of relief payments, even where relief work was performed.

In the overwhelming majority of cases, the worker who received a low annual income from a single plant in the industry still received a low income from the motor-vehicle industry as a whole. Even among those workers who earned less than $200 a year in the plants surveyed, three-quarters of the individuals obtained no employment from other plants in the industry, and nine-tenths of those who earned as much as $400 in one plant worked in no other motor-vehicle plant during the year (table 13).

Table 13.—Percentages of Workers Dependent Upon Employment in a Single Motor-Vehicle Plant During 1934, Classified by Annual Earnings in Plant Surveyed

Annual earnings in plant surveyed	Number of workers covered	Percent with no other earnings from the industry	Percent with no other wages during year
Less than $100	85	71.8	56.5
$100 and less than $200	199	78.9	62.8
$200 and less than $300	286	82.9	62.9
$300 and less than $400	325	89.5	73.5
$400 and less than $500	381	92.7	79.3
$500 and less than $600	457	91.3	84.0
$600 and less than $700	422	92.6	84.1
$700 and less than $800	356	93.8	89.3
$800 and less than $900	298	94.6	90.9
$900 and less than $1,000	206	93.7	91.3
$1,000 and less than $1,100	156	93.6	91.0
$1,100 and less than $1,200	97	94.9	92.8
$1,200 and less than $1,300	80	96.3	96.3
$1,300 and less than $1,400	61	93.4	90.2
$1,400 and less than $1,500	34	100.0	100.0
$1,500 and less than $1,600	31	100.0	100.0
$1,600 and less than $1,700	21	95.2	95.2
$1,700 and less than $1,800	8	87.5	87.5
$1,800 and less than $1,900	12	100.0	100.0
$1,900 and less than $2,000	7	100.0	100.0
$2,000 and over	16	100.0	100.0
Total	3,538		

The majority of motor-vehicle workers received no wages whatever in addition to those earned in the individual plant which was surveyed. Two-thirds of those who earned as much as $200, four-fifths of those who earned as much as $500 and nine-tenths of those who earned $800 or more from individual plants earned nothing during the year from work in any other establishments, inside or outside the motor-vehicle industry (table 13).

Employment in the motor-vehicle plants surveyed provided half of the individuals therein with less than $906 and the other half with more than this amount during the year 1934. Additional employment of these individuals by other plants within the industry added an average of between $20 and $40 per year to the incomes of these workers. Employment by all plants in the motor-vehicle industry furnished the lower-paid half of the workers with as much as $933 during the year. There remained the chance for employment of motor-vehicle workers in plants outside of the industry. Half of

the workers who were employed by motor-vehicle plants during their busy season earned wages of less than $947 from all types of employment during the year 1934 (table 14).

The longer the employment provided by a given plant, the smaller was the worker's chance of obtaining work elsewhere. Hence, in general, the amount of supplementary income declined sharply as the wages earned in an individual plant increased. One-quarter of the workers, who earned the smallest amounts, received less than $527 per year from the plants surveyed, less than $562 from all motor-vehicle plants which employed them during the year and less than $591 per year from all types of work taken together. This broad group with low incomes thus added an average of $35 per year by finding additional employment within the industry and they added, besides, an average of $29 per year by securing employment outside the industry. All kinds of supplementary employment thus furnished the least fortunate one-quarter with an average of $64 per year beyond what was received from the individual plants surveyed. By contrast, the most fortunate one-quarter of the motor-vehicle workers earned $1,225 or more from individual plants, $1,247 from all plants in the industry, and $1,255 from all types of employment during the year. This latter group of best-paid workers thus obtained an average supplement of $30 per year in addition to wages received from the plants which primarily employed them—an average supplement of $22 from secondary employment within the motor-vehicle industry, plus an average of $8 per year from employment outside of the industry.

Table 14.—Cumulative Percentage Distribution of Estimated Annual Earnings of Workers in Motor-Vehicle Industry, 1934

Annual earnings	Percent of workers with earnings of less than specified amounts, from—		
	Individual plants in which pay rolls were noted	All motor-vehicle plants providing employment	All sources of wages
Less than $100	1.8	1.3	1.0
Less than $200	5.8	4.6	3.7
Less than $300	11.1	9.1	7.5
Less than $400	17.0	14.9	13.0
Less than $500	23.3	21.2	19.1
Less than $600	29.6	27.3	25.6
Less than $700	35.8	33.6	31.9
Less than $800	42.7	40.6	39.1
Less than $900	49.5	47.5	46.4
Less than $1,000	57.0	55.1	54.1
Less than $1,100	64.7	62.8	61.9
Less than $1,200	73.0	71.1	70.4
Less than $1,300	80.9	79.3	78.8
Less than $1,400	86.6	85.1	84.7
Less than $1,500	90.5	89.3	89.1
Less than $1,600	93.4	92.5	92.3
Less than $1,700	95.5	94.6	94.3
Less than $1,800	97.0	96.3	96.3
Less than $1,900	98.0	97.5	97.3
Less than $2,000	98.6	98.3	98.3

Sex Differentials in Earnings and Hours [25]

THE men in the motor-vehicle industry earned an average of about 42 percent more per hour, had an average working week about 5 percent longer and thus earned approximately 50 percent more per week than did the woman employees. Since more than nine-tenths of the industry's workers are men, the general averages conceal the very much lower hourly and weekly wages paid to the women.

The average hourly earnings of all the men studied in April 1934 were 70.7 cents, in contrast with the average of 48.9 cents an hour which was earned by the women. Similar differences existed in the slack month of September and in both divisions of the industry. During April, 85.5 percent of the women in the industry but only 22.5 percent of the men had average earnings of less than 60 cents an hour. In the automobile division of the industry, 80.2 percent of the women averaged less than 60 cents an hour in April while only 15.2 percent of the men were paid less per hour. In the automotive-parts plants 90.1 percent of the women and 43.6 percent of the men averaged less than 60 cents an hour during this month of active production.

The sex differential for the smaller group of office workers was less than for the factory workers. Male factory workers earned an average of 71.0 cents an hour or 20.5 cents more than female factory workers in April, and 72.4 cents an hour or 24.8 cents more than female factory workers in September. Male office workers earned an average of 65.3 cents an hour or 19.4 cents more than female office workers in April and an average of 67.6 cents an hour or 15.4 cents more than female office workers in September.

The average working time of all the males studied in April was 38.8 hours per week as compared with an average of 36.4 hours per week for women in this month. More than 40 hours per week were worked in April by 39 percent of the men and by only 15.4 percent of the women. As the working week decreased during 1934, the hours differential as between the sexes decreased in the motor-vehicle industry as a whole. In September the average weekly hours in the whole industry were 33.6 for men and 32.1 for women.

Within the office group, the hours of work for the two sexes were more similar than within the larger factory group. The average weekly hours of office workers during April were 40.7 for males and 39.4 for females. In September female office workers in the whole industry actually worked for a slightly longer average of weekly hours than did male office workers, the average being 38.1 hours for men and 38.9 hours for women.

[25] Compare tables 1, 2, and 3 (pp. 523, 524, and 527).

The average weekly earnings of all the men studied in April 1934 were $27.45 as compared with an average of $17.80 per week for all the women. Male earnings were thus $9.65 per week or 54 percent greater than female earnings. Four-fifths of the women but only one-quarter of the men earned less than $22.80 per week in this active month. This differential was much greater in parts plants than in automobile plants, both in April and September of that year. The differential became slightly less as the industry entered its slack season, largely because the working hours, and hence the weekly earnings, of the woman office workers were well sustained. In September, male workers in the entire industry earned an average of $24.33 per week while all the women studied earned an average of $16.08. Male earnings during the slack season thus averaged $8.25 per week or 51 percent more than the corresponding earnings of women. Less than $22 per week was earned in September by 38 percent of the men and by 82 percent of the women.

Within the dominant factory group, the superiority of the men's weekly earnings became greater as the industry approached the slack season. In April male factory workers earned an average of $27.49 per week while female factory workers earned an average of $17.67. In September, however, the male average of weekly earnings for factory workers fell only to $24.23 as compared with a fall in women's earnings among the factory workers to an average of $12.47 per week. In the automotive-parts division, the average weekly earnings of woman factory workers fell to $10.69 per week in September or little more than half of the $20.95 earned by male factory workers in those plants.

Occupational Differentials Among Male Workers

THE men employed by automobile plants were classified, for the purposes of the 1934 study, into 58 occupational groups, including 11 groups which had not been designated separately prior to 1934.[26] Among these 58 occupational groups the averages of hourly earnings in April 1934 ranged from $1.06 for bumpers and dingmen to 56.4 cents an hour for the nonproductive service occupations (table 15). The corresponding range had been much narrower during the depression year 1932 (86.0 to 56.1 cents per hour), and it also became narrower during the slack month of September 1934 (99.7 to 60.0 cents per hour).

[26] See Monthly Labor Review, June 1933 (p. 1365). Of these 11 occupational groups, 4 were included in 1934 but omitted from the studies of 1920 and 1932: Office, supervisory; stenographers and telephone operators; office, clerical; powerhouse employees. Seven other groups were shown previously as "other employees": Supervisory, group I, group II; maintenance, skilled, unskilled; miscellaneous nonproductive, unskilled; shippers and car drivers; nonproductive service employees. These occupations which were specified for the first time in 1934 embraced 14 percent of the males studied in April and 19 percent of the males studied in September of that year.

Table 15.—Average Hourly Earnings and Relative Employment of Males in Automobile Plants, by Occupation, April and September 1934

Occupational group	Average hourly earnings			Number of employees reported		
	April 1934	September 1934	Percentage change	April 1934	September 1934	Percentage change
	Cents	*Cents*				
All occupations, males	72.7	74.2	+2.1	109,238	72,214	−33.9
Processing occupations:						
Bumpers and dingmen	106.3	99.7	−6.2	433	222	−48.7
Letterers, stripers, and final touch-ups	89.5	86.5	−3.4	668	396	−40.7
Hammermen, forge shop	87.1	80.3	−7.8	665	564	−15.2
Metal finishers	86.7	85.5	−1.4	4,545	1,989	−56.2
Cutters, cloth and leather	85.7	89.3	+4.2	172	90	−47.7
Miscellaneous productive occupations, skilled	84.2	82.8	−1.7	737	543	−26.3
Lacquer rubbers	84.1	82.8	−1.5	1,334	711	−46.7
Doorhangers and panel assemblers	81.5	82.1	+.7	1,691	802	−52.6
Polishers and buffers (plating)	80.0	81.5	+1.9	682	461	−32.4
Paint sprayers	78.3	75.4	−3.7	1,497	1,025	−31.5
Gear-cutter operators	77.8	75.5	−3.0	514	328	−36.2
Top builders and trimmers	76.9	78.4	+2.0	3,936	1,972	−49.9
Woodworking-machine operators	75.8	78.0	+2.9	1,009	440	−56.4
Machine operators, group II [1]	75.4	77.0	+2.1	4,606	3,552	−22.9
Assemblers, body frame	75.3	78.4	+4.1	2,278	1,114	−51.1
Sheet-metal workers	75.2	75.3	+.1	1,821	1,232	−32.3
Assemblers, motor and transmission	74.5	75.3	+1.1	1,966	1,256	−36.1
Welders, machine	74.3	72.2	−2.8	2,278	1,011	−55.6
Sewers and trim bench hands	74.2	75.6	+1.9	786	403	−48.7
Sanders and rough-stuff rubbers	72.3	71.9	−.6	1,848	905	−51.0
Assemblers, chassis and final	72.0	73.3	+1.8	8,114	4,724	−41.8
Machine operators, group I [2]	71.4	73.8	+3.4	6,985	4,550	−34.9
Hardeners and annealers	70.9	69.9	−1.4	722	553	−23.4
Assemblers, chassis frame	70.3	71.3	+1.4	456	282	−38.2
Bench hands, machine shop	69.7	74.3	+6.6	450	318	−29.3
Assemblers, axle	69.4	75.1	+8.2	1,478	785	−46.9
Punch and press operators	69.3	70.4	+1.6	4,566	1,891	−58.6
Platers	68.9	71.0	+3.0	245	183	−25.3
Sandblasters, etc	67.3	70.5	+4.8	902	453	−49.8
Miscellaneous productive occupations, unskilled	65.8	68.3	+3.8	455	297	−34.7
Nonprocessing occupations:						
Supervisory occupations, group I	93.9	95.2	+1.4	1,229	1,056	−14.1
Tool and die makers	89.9	93.3	+3.8	2,123	2,470	+16.3
Miscellaneous nonproductive occupations, skilled	87.6	89.5	+2.2	1,036	954	−7.9
Pattern makers	86.7	90.9	+4.8	513	511	−.4
Supervisory occupations, group II	79.8	83.4	+4.5	1,759	1,628	−7.4
Office, supervisory	75.4	77.9	+3.3	641	740	+15.4
Maintenance, skilled	73.1	74.3	+1.6	3,093	2,460	−20.5
Millwrights	71.9	72.2	+.4	1,082	878	−18.9
Power-house occupations	68.9	70.8	+2.8	573	488	−14.8
Crane operators, miscellaneous	68.5	71.4	+4.2	396	407	+2.8
Miscellaneous nonproductive occupations, unskilled	66.7	67.7	+1.5	274	308	+12.4
Stenographers and telephone operators	66.7	67.5	+1.2	117	89	−23.9
Office, clerical	65.1	67.0	+2.9	4,236	3,626	−14.4
Material handlers and stockers	64.9	68.3	+5.2	1,949	1,509	−22.6
Maintenance, unskilled	62.9	65.0	+3.3	527	498	−5.5
Truckers, power	62.8	64.6	+2.9	1,193	887	−25.6
Miscellaneous occupations: [3]						
Machinists	79.0	80.3	+1.6	1,993	2,143	+7.5
Welders and braziers, hand	78.7	78.1	−.8	1,955	1,131	−42.1
Die setters	77.4	80.2	+3.6	464	394	−15.1
Foundry occupations	74.8	76.8	+2.7	1,188	710	−40.2
Inspectors, testers, balancers, and straighteners	72.4	74.4	+2.8	5,336	3,866	−27.5
Forge shop (except hammermen)	72.1	71.2	−1.2	1,133	681	−39.9
Paint shop, miscellaneous	71.7	71.8	+.1	588	441	−25.0
Helpers (except forge shop)	65.2	65.0	−.3	1,733	764	−55.9
Shippers and car drivers	61.1	63.8	+4.4	1,262	879	−30.3
Laborers	60.7	61.7	+1.6	12,377	7,484	−39.5
Apprentices	58.1	60.0	+3.3	674	296	−56.1
Nonproductive service occupations	56.4	57.3	+1.6	1,955	1,864	−4.7

[1] Boring mill operators, grinding machine operators, nonautomatic lathe operators, planer and shaper operators.

[2] Automatic lathe and screw machine operators, drill press operators and milling machine operators.

[3] Occupations embracing both processing and nonprocessing employees.

Table 16.—Average Hourly Earnings and Relative Employment of Male Employees in Automotive-Parts Plants, by Occupation, April and September 1934

Occupational group	Average hourly earnings			Number of employees		
	April 1934	September 1934	Percentage change	April 1934	September 1934	Percentage change
	Cents	*Cents*				
All occupations, males	64.9	66.1	+1.8	37,212	21,776	−41.5
Processing occupations						
Lacquer rubbers	92.4	89.5	−3.1	312	52	−83.3
Letterers, stripers, and touch-ups	84.2	77.3	−8.2	208	51	−75.5
Polishers and buffers (plating)	81.9	73.9	−9.8	1,887	437	−76.8
Paint sprayers	81.8	75.2	−8.1	235	132	−43.8
Metal finishers	80.7	76.6	−5.1	1,021	306	−70.0
Welders, machine	71.5	68.3	−4.5	575	224	−61.0
Platers	70.1	65.3	−6.8	476	175	−63.2
Gear-cutter operators	64.7	65.3	+.9	367	244	−33.5
Assemblers, chassis and final	63.4	58.0	−8.5	1,481	726	−51.0
Sheet-metal workers	63.1	62.1	−1.6	1,373	755	−45.0
Punch and press operators	62.8	63.6	+1.3	2,411	981	−59.3
Machine operators, group I [1]	62.6	64.9	+3.7	3,680	2,246	−39.0
Sandblasters, etc	62.4	62.0	−.6	303	151	−50.2
Assemblers, motor and transmission	62.3	64.4	+3.4	923	572	−38.0
Miscellaneous productive occupations [2]	61.5	63.4	+3.1	1,019	672	−34.1
Machine operators, group II [3]	61.1	64.9	+6.2	3,143	2,037	−35.2
Assemblers, chassis frame	60.7	62.8	+3.5	450	180	−60.0
Assemblers, body frame and panel	58.1	61.4	+5.7	122	46	−62.3
Assemblers, axle	56.1	61.3	+9.3	475	308	−35.2
Nonprocessing occupations:						
Tool, die, and pattern makers	85.7	87.7	+2.3	1,737	1,461	−15.9
Miscellaneous nonproductive, skilled	83.1	86.9	+4.6	323	360	+11.5
Supervisory occupations	79.8	80.2	+.5	749	707	−5.6
Office, supervisory	71.3	73.0	+2.4	316	294	−7.0
Maintenance, skilled	67.7	69.0	+1.9	560	422	−24.6
Millwrights	64.7	66.6	+2.9	295	201	−31.9
Office, clerks	59.7	60.8	+1.8	1,348	1,088	−19.3
Miscellaneous nonproductive, unskilled [4]	57.3	58.4	+1.9	798	570	−28.6
Maintenance, unskilled	56.9	57.4	+.9	245	153	−37.6
Service occupations	52.0	51.5	−1.0	981	832	−15.2
Miscellaneous occupations: [5]						
Die setters	76.4	80.7	+5.6	249	171	−31.3
Machinists	72.6	73.4	+1.1	959	730	−23.9
Welders and braziers, hand	68.6	67.9	−1.0	309	186	−39.8
Paint shop, miscellaneous	65.9	64.6	−2.0	191	154	−19.4
Forge-shop occupations	65.6	70.8	+7.9	814	484	−40.5
Inspectors and testers	59.9	62.0	+3.5	2,727	1,528	−44.0
Helpers (except forge shop)	58.2	59.8	+2.7	509	175	−65.6
Shippers	55.5	54.4	−2.0	548	330	−39.8
Laborers	52.0	51.5	−1.0	2,935	1,487	−49.3
Apprentices	48.9	54.0	+10.4	158	148	−6.3

[1] Includes automatic lathe and screw, drill press, and milling machine operators.
[2] Includes also foundry and heat treat employees, machine shop bench hands, bumpers, designmen, and glass assemblers.
[3] Includes boring mill, grinding machine, lathe, planer, and shaper operators.
[4] Includes also material handlers and stock-room labor.
[5] Occupations embracing both processing and nonprocessing workers.

The employees of automotive-parts plants were classified into 39 occupational groups. Since this division of the motor-vehicle industry was surveyed by the Bureau for the first time in 1934, no earlier information for occupational groups is available. Among the men engaged in the 39 specified occupations, average hourly earnings in April 1934 ranged from 92.4 cents for lacquer rubbers to 48.9 cents for apprentices (table 16). The range of average hourly earnings became distinctly narrower during the slack season of that year. In September 1934, lacquer rubbers earned an average of 89.5 cents an hour while the men employed as laborers and in various service occupations earned an average of 51.5 cents an hour.

Certain occupations in the motor-vehicle industry are directly concerned with the direct processing of materials. Such occupations are much more sensitive to the volume of current production than are the nonprocessing occupations such as supervisory employees, office workers, tool and die makers, and maintenance employees. Of the 58 occupational groups designated for the automobile division, 30 were identified as concerned almost entirely with direct processing, 16 were identified as nonprocessing occupations, while 12 occupations contained a mixture of both types of workers or workers which are classified differently in different plants. In the parts division, 19 occupations were classified as processing, 10 as nonprocessing and 10 as combined or doubtful. In both divisions of the industry, the men employed in processing occupations suffered a much more severe curtailment of employment and obtained much less consistent gains in average hourly earnings between April and September 1934 than did the nonprocessing occupations.

Information as to the average weekly hours and average weekly earnings of each of the occupations designated will be published in a forthcoming bulletin of the Bureau of Labor Statistics.[27] This material indicates that the processing occupations suffered even greater declines in hours and weekly earnings as the industry entered its slack season of 1934 than did the nonprocessing occupations.

Regional Differentials in Earnings and Hours, April 1934

Approximately three-fifths of the motor-vehicle workers in the United States are employed in plants located in the State of Michigan. Among these Michigan plants, considerable differences in earnings and hours were found as between the immediate area of Detroit, including the suburbs, and the remainder of the State. Hence the Bureau's study of the industry for 1934 distinguishes between these two areas as well as among the eight States outside of Michigan where substantial numbers of motor-vehicle employees are to be found. The regional differences discovered are here summarized for the month of April 1934, since the fuller employment at that time makes the period somewhat more representative than September 1934. The averages cited are based upon a selection of employees in representative occupations and hence differ slightly from the corresponding averages for all employees.[28] The relative position of the various regions is not believed to be affected by this selection, however.

[27] The average hourly earnings, weekly hours and weekly earnings of women in 7 occupations of the automobile division and 9 occupations of the parts division will also be given in this bulletin. Comparisons will be drawn between the earnings and hours of specific occupations in 1930 and 1932 and the earnings and hours of all comparable occupations in April and September 1934.

[28] The selected occupations included nine-tenths of all the employees studied. Office as well as factory workers were represented in the selection.

Average hourly earnings in the motor-vehicle industry ranged from 72.0 cents in Detroit to 59.9 cents in Illinois during April 1934 (table 17). In the automobile division of the industry, average hourly earnings ranged from 74.7 cents in Michigan outside of Detroit to 62.2 cents in Indiana. The corresponding range among automotive-parts plants was from 68.9 cents an hour in Detroit to 56.6 cents in the Michigan area outside Detroit. It is noteworthy that in the automobile division the Michigan plants outside of Detroit paid an average of 2 cents an hour more than the Detroit plants. In the automotive-parts division the Michigan plants outside Detroit paid an average of 12.3 cents an hour less than Detroit plants. In fact, these automotive-parts plants in Michigan outside Detroit paid a lower average of hourly earnings than did automotive-parts plants in any other major area.

Table 17 also shows the average weekly hours and weekly earnings of workers in each of the regions which were designated. It will be seen that average weekly earnings were highest in Detroit for both divisions of the industry. Automobile plants in Detroit worked for sufficiently long hours to overcome their disadvantage in hourly earnings as compared with the plants in Michigan outside Detroit.

Table 17.—Regional Averages of Hourly Earnings, Weeky Hours, and Weekly Earnings In Representative Occupations in Automobile and Automotive-Parts Plants, April 1934

Region	Average hourly earnings			Average weekly hours			Average weekly earnings		
	Automobile plants	Automotive-parts plants	Motor-vehicle industry	Automobile plants	Automotive-parts plants	Motor-vehicle industry	Automobile plants	Automotive-parts plants	Motor-vehicle industry
	Ct.	*Ct.*	*Ct.*						
All areas studied	71.6	61.9	71.0	39.1	37.2	38.6	$27.98	$23.05	$26.6
Detroit	72.7	68.9	72.0	40.3	36.7	39.6	29.30	25.33	28.4
Michigan, except Detroit	74.7	56.6	69.3	37.6	37.5	37.6	28.12	21.24	26.0
All areas outside Michigan	66.9	57.8	64.0	37.8	37.6	37.8	25.30	21.75	24.1
Ohio	69.0	58.1	65.1	40.4	38.7	39.8	27.89	22.52	25.9
Indiana	62.2	59.8	61.1	29.2	36.9	32.3	18.17	22.06	19.7
New York	69.3	60.0	66.6	39.2	36.5	38.4	27.15	21.92	25.6
Pennsylvania-New Jersey	68.2	(1)	65.9	37.7	(1)	37.8	25.74	(1)	24.9
Wisconsin	65.6	(1)	61.9	39.1	(1)	39.2	25.68	(1)	24.2
Missouri	67.3	(2)	67.3	39.0	(2)	39.0	26.24	(2)	26.2
Illinois	(1)	57.7	59.9	(1)	36.2	39.3	(1)	20.93	23.5
California	(1)	(1)	64.8	(1)	(1)	36.8	(1)	(1)	23.8

[1] Insufficient numbers in sample to represent the State.
[2] No sample of automotive parts plants in Missouri.

The annual earnings of male automobile workers averaged $1,003 in Detroit and $970 in the rest of Michigan. Average annual earnings were higher in Detroit, in spite of the lower level of hourly earnings in that area, because the males in Detroit were able to obtain an average of 39.0 weeks of work as compared with 37.8 weeks in Michigan outside Detroit. In Indiana the male automobile workers averaged only $672 during 1934. The female automobile workers

earned an average of $752 in Detroit, $692 in Michigan outside Detroit, and $750 in all the plants studied outside of Michigan.

In the automotive-parts division male workers in all the plants studied outside of Michigan obtained an average of 40.0 weeks of employment and earned an average of $866. The Detroit males in this division worked for an average of only 33.3 weeks and earned an average of $825, while in Michigan outside Detroit an average of $707 was received by men for an average of 35.9 weeks of work. The women in automotive-parts plants earned an average of $615 outside Michigan, $507 in Detroit, and $514 in Michigan plants outside Detroit.

Money Disbursements of Wage Earners and Clerical Workers in 11 New Hampshire Communities

By Faith M. Williams, of the Bureau of Labor Statistics

DURING the fall and winter of 1934–35 the United States Bureau of Labor Statistics studied the money disbursements of wage earners and lower-salaried clerical workers in 11 communities in New Hampshire, in cooperation with the New Hampshire Minimum Wage Office and the New Hampshire Emergency Relief Administration.[1]

This New Hampshire study forms a part of a Nation-wide survey of the money disbursements of the families of the wage-earner and lower-salaried clerical groups, made for the purpose of revising and extending the cost-of-living indexes published currently by the Bureau of Labor Statistics. These indexes are at present based on data obtained in the Bureau's study of family expenditures in 1917–19, the last Nation-wide study of family purchases made in this country. The kinds of articles available in the retail market and consumer purchasing habits have changed greatly in the last 15 years. Some goods which were not widely available in 1917–19 are now purchased regularly by families of moderate and low income. Other goods have decreased in relative importance. A number of studies of consumer purchasing have been made since 1919 by various agencies, but they have not been sufficiently extensive or coordinated in such a way as to provide the data needed either for revising the Bureau's cost-of-living indexes or for estimating present-day consumer demand.

The data collected in the current investigation will not only be used for the purpose of computing new indexes of the cost of goods purchased by wage earners and lower-salaried clerical workers, but will also be valuable in providing producers, distributors, and Government agencies with information about differences in the average consumption patterns of these classes of workers at different economic levels, in different parts of the country, and in towns of different sizes. Since actual expenditure figures are being secured from families studied, the results of the investigation should be distinguished from those secured by pricing a hypothetical budget in different communities to obtain data on regional differences in the cost of that budget.

[1] The survey was conducted under the direction of Faith M. Williams and Ethel M. Johnson, New Hampshire minimum wage director. Gertrude Schmidt, of the Bureau of Labor Statistics, and C. Spencer Platt, supervisor-statistician of the New Hampshire Cost of Living Service (a branch of the minimum wage office), were in immediate charge of the study.

Manchester, N. H., was included in the Bureau's program for a Nation-wide study. The inclusion of other New Hampshire towns was made possible by the cooperation of local agencies. John G. Winant, then Governor of the State, the State minimum wage office, the New Hampshire Emergency Relief Administration, the State planning commission, and the extension service of the University of New Hampshire were all interested in securing information as to the actual money disbursements of families of wage earners and lower-salaried clerical workers in towns of different size and in different parts of the State. As a result, the New Hampshire Emergency Relief Administration assigned a group of professional and clerical workers to the investigation.[2]

The Bureau welcomed the extension of its original plan, not only because of its interest in cooperating with State agencies to meet local needs, but also because of the unique character of the data which would result from such a study. There have been relatively few investigations in the United States which have secured data on the money disbursements of wage earners and lower-salaried clerical workers in towns of different size *in the same part of the country*, and none in recent years. The data on variations in consumer demand in towns from 3,000 to approximately 80,000 population yielded by this investigation make a valuable addition to knowledge in an important field. It is hoped that it will be possible to collect retail prices over a period of years in several of the towns included in this study, and to compute index numbers of the cost of the goods shown by this investigation to be customarily purchased by the wage earners and lower-salaried clerical workers living in these towns. Such a series would be valuable in showing whether there are significant differences from time to time in the rate at which the cost of such goods changes in towns of different size in a given geographic area, and whether an index of living costs based on the prices and the purchasing habits of one city may properly be applied to other towns of smaller size, but in the same part of the country.

Methods of Investigation

THE data summarized in the following pages were secured by the "schedule method." Interviewers visited the workers and their families with carefully prepared schedules, and obtained detailed estimates of money income and outgo during the past year. Detailed data on food purchases and food consumption obtained by weekly records kept for each family for four different seasons of the year are still being collected and will be covered in subsequent reports. These

[2] In the field they worked under the immediate guidance of supervisors from the staff of the Bureau of Labor Statistics, but in the tabulation of the data secured, under the immediate supervision of the New Hampshire Minimum Wage Office. A final summary of the tabulations is in process at the Bureau of Labor Statistics.

records of food purchased and consumed are being supervised by trained field workers who make daily visits to the families during the weeks when the records are kept.

Selection of Sample

THE families studied were chosen to represent a cross section of the families of employed white wage earners and lower-salaried clerical workers in the 11 towns.[a] The importance of data on purchases by higher-salaried clerical workers, professional persons, managers and officials, and those in business for themselves is generally recognized, but the limited funds available have made it necessary heretofore to confine the investigation to the wage earner and lower-salaried clerical groups.

No persons living alone were scheduled in the New Hampshire study. In obtaining data from the families studied the unit for the investigation was the "economic family", defined as a group of persons dependent on a common income, at least two of whom live together and share the same table. For example, a family consisting of a man and wife and a nephew would be counted as a family of three, in a case where the nephew worked in a factory part of the year and was away at college part of the year, if he contributed his earnings to the family funds, and was completely dependent on the family funds for his expenses.

All of the families scheduled include one or more wage earners or lower-salaried clerical workers who worked a minimum of 1,008 hours in at least 36 weeks during the year.[3] Since the data were being obtained primarily for the purpose of providing a basis for indexes of living costs, it was important that they should not reflect the distorted spending of families whose incomes had been abnormally low and irregular. On that account no data were included from families with incomes under $500 a year or from families who received relief during the year.

The list of cities and towns to be surveyed was chosen to secure an adequate picture of the consumption of wage earners and clerical workers in New Hampshire. Data were secured from Conway, Littleton, Claremont, Laconia, Dover, Keene, Concord, Berlin, Portsmouth, Nashua, and Manchester.

The average number of members in the families visited in these 11 cities varied from 3.41 in Keene to 4.08 in Berlin. The average number of persons gainfully employed in the schedule year varied

[a] There are so few Negro workers in New Hampshire that the study in this State was confined to white workers.

[3] An exception was made in the case of families in which the chief earner was employed in an industry normally seasonal. Such families were included if the chief earner had employment for 3½ 8-hour days in each of 30 weeks.

from 1.24 in Berlin, where the only important manufacturing plant is a large pulp mill to 1.86 in Manchester where textile mills and shoe factories offer opportunities for work to women and girls.

Family Incomes

AVERAGE family incomes among employed wage earners and lower-salaried workers in the 11 towns varied from $1,137 in Berlin to $1,476 in Concord. A comparison of the figures on number of gainful workers per family, average family income, and average earnings of the chief earner shown in table 1 reveals the fact that the level of the earnings of individual workers and the number of earners per family are of varying importance in determining family incomes in the different towns. In the 4 towns where family incomes average more than $1,400 (Manchester, Concord, Nashua, and Portsmouth) the number of earners varied from 1.28 in Concord and 1.37 in Portsmouth, where governmental activities have a stabilizing effect on employment and there is a relatively large proportion of clerical workers, to 1.72 in Nashua and 1.86 in Manchester, where the average income of the chief earner was relatively low, but the industrial situation made it possible for the women and girls of the family to work outside the home. Although average incomes varied within a relatively narrow range among the 11 towns, the range in individual incomes was relatively large. The minimum income of $500 was set by the plan of the investigation, and the highest income was $4,500 in a family with seven employed members.

Table 1.—Income and Expenditures of 1,134 Families in 11 New Hampshire Towns in 1933–34

Town	Number of families studied	Average number of members per economic family [1]	Average number of gainful workers per family [2]	Average income per family [3]	Average earnings of chief earner	Average current expenditures per family
Manchester	147	3.83	1.86	$1,405	$996	$1,399
Nashua	100	4.02	1.72	1,435	1,046	1,355
Concord	99	3.42	1.28	1,476	1,297	1,404
Berlin	100	4.08	1.24	1,137	1,039	1,119
Portsmouth	95	3.81	1.37	1,402	1,151	1,369
Keene	97	3.41	1.38	1,232	1,014	1,192
Dover	98	3.60	1.57	1,311	1,028	1,279
Laconia	100	3.46	1.41	1,299	1,101	1,253
Claremont	100	3.51	1.47	1,171	971	1,175
Littleton	99	3.47	1.44	1,145	945	1,128
Conway	99	3.77	1.38	1,242	1,115	1,199

[1] Computed to represent the number of persons dependent on the family funds for a year. Persons who were part of the "economic family" for only part of a year were counted as a fraction of a member depending on the proportion of the year each was dependent on the family funds.
[2] Each person gainfully employed at any time of the year treated as one.
[3] Current income only. Does not include money used for current expenditures but derived from bank accounts or cash received before the schedule year, from the surrender of life insurance or endowment policies, from sale of properties, from repayment of loans made before the schedule year, or by increase in debt during the year.

Table 2.—Sources of Income in 1933–34 of Families of Classified Consumption Levels, by Size of Town

Item	Over 50,000 population [1]		20,000–50,000 population [2]		10,000–20,000 population [3]		Under 10,000 population [4]	
	Families with total expenditure per consumption unit of—							
	Under $400	$400 and over	Under $400	$400 and over	Under $400	$400 and over	Under $400	$400 and over
Number of families	73	74	162	137	244	246	105	93
Average number of members in economic family	4.73	2.95	4.71	2.80	4.43	2.68	4.54	2.78
Average family income	$1,358	$1,451	$1,174	$1,537	$1,134	$1,426	$1,101	$1,296
Percentage distribution								
Family earnings	93.3	95.0	96.6	95.5	93.9	92.2	96.8	94.1
Rent from boarders and/or lodgers (net)	5.1	3.6	.9	2.2	3.3	2.7	1.5	2.2
Other rents (net)	.7	.4	.8	.6	.7	1.1	.3	.4
Interest and dividends	.1	.3	.2	.5	.4	.8	(5)	.5
Pensions and insurance annuities	.3	.4	.8	.2	.3	2.2	.4	1.2
Gifts	.5	.2	.2	.5	.5	.6	.3	.4
Other money income	(5)	.1	.5	.5	.9	.4	.7	1.2
Total family income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Manchester.
[2] Nashua, Concord, Berlin.
[3] Portsmouth, Keene, Dover, Laconia, Claremont.
[4] Littleton, Conway.
[5] Less than 1/10 of 1 percent.

To analyze the expenditures of the families studied in relation to the economic position of the families, and to make comparisons among the types of expenditures of families living at different economic levels, it was necessary to classify the families according to the level of their living, that is, their expenditures for consumption goods.

Classification by the total expenditure of the family, without regard to the number and type of consumers sharing the goods purchased by the family, would be unsound. A family of two adults spending $1,200 for consumer goods during a year is obviously on a higher economic level than a family of six adults spending the same sum. In making the classification of families according to expenditure, variations in demand for food, clothing, and other items, by persons of different age, sex, and occupation, were taken into account. The demands of persons of different age, sex, and occupation have been expressed as relatives or percentages of the demand of an adult male. These relative demands are not the same for food as for clothing or for other items. Therefore, relative demand for each of these three groups of items has been computed separately.

The food-consumption relatives were based on data secured from the Bureau of Home Economics, showing quantities of food consumed by persons of different age, sex, and physical activity, estimated partly on the basis of energy requirements and partly on the basis of the actual food consumption of *families* of wage earners and clerical workers. (To have secured records of the actual food consumption of individuals would have required an unjustified expense.) These quantities of foods were multiplied by the average retail prices for each item, for the United States in 1934, and the dollar figures so obtained were used to compute a scale of food-consumption units relative to the food consumption of an adult male.

Clothing-consumption relatives were computed separately for each city or group of cities within a region, directly from the data secured in this study on clothing expenditures for persons of different sex, age, and occupation.

No attempt has been made to determine relative demand for items other than food and clothing, and each member of the family has been considered the equivalent of an adult male in his demand for this third group of items.

With the use of these relatives, it was possible to compute expenditures for each equivalent adult male for each family by dividing the family expenditure for each of the three groups of items by the number of consumption units, or equivalent adult males for each group of items. Finally the total expenditure per consumption unit was secured by adding these three figures together.

When the 1,134 families studied were sorted into two groups according to expenditure per consumption unit, it was found that the difference in average family size between the higher- and lower-expenditure groups was relatively greater than the difference in average total family expenditure. Average family size in the lower-expenditure group was 168 percent of the average family size in the upper-expenditure group. The average total family expenditure of the lower group was 81 percent of the average total family expenditure of the upper group.

In computing family income, money used for current expenditures but derived from bank accounts or cash received before the schedule year, from the surrender or settlement of life insurance or endowment policies, from sale of properties, from repayment of loans made before the schedule year, or by increase in debt during the year is not regarded as "current" income, and is not presented in table 2.

Table 3.—Percentage Distribution of Family Expenditures for Specified Groups of Items in 1933–34, by Towns

Item	Manchester	Nashua	Concord	Berlin	Portsmouth	Keene	Dover	Laconia	Claremont	Littleton	Conway
Population, 1930	76,834	31,463	25,228	20,018	14,495	13,794	13,573	12,471	12,377	4,558	3,217
Number of families studied	147	100	99	100	95	97	98	100	100	99	99
Average number of members in economic family	3.83	4.02	3.42	4.08	3.81	3.41	3.60	3.46	3.51	3.47	3.77
Total current expenditures	$1,399	$1,355	$1,404	$1,119	$1,369	$1,192	$1,279	$1,253	$1,175	$1,128	$1,199
Percentage distribution											
Food	34.5	34.3	30.4	37.4	34.8	34.2	35.4	33.6	32.2	32.0	35.4
Clothing	12.3	12.6	9.3	11.1	10.9	9.6	11.8	10.1	10.4	9.3	10.3
Housing	13.5	14.8	17.2	13.3	13.7	16.7	13.1	15.7	15.7	13.0	11.6
Household operation	13.0	13.4	15.5	12.6	15.5	15.6	14.3	14.7	14.4	15.3	13.3
Furnishings and equipment	4.7	3.4	2.8	3.4	3.6	2.6	3.8	3.0	3.0	4.9	3.7
Transportation	6.6	4.6	8.7	4.6	6.8	5.3	5.5	6.6	6.6	7.9	8.3
Personal care	1.9	2.1	1.9	2.1	2.0	2.1	1.9	1.8	2.1	2.0	1.9
Medical care	3.7	4.0	3.9	4.3	2.5	3.3	4.0	4.3	4.0	4.4	4.5
Recreation	5.3	5.5	5.2	6.1	5.7	5.6	5.4	6.0	6.1	5.7	5.2
Education	.4	.6	.3	.3	.2	.6	.3	.3	.1	.2	.2
Vocation	.6	.2	.6	.1	.1	.3	.4	.1	.2	.2	.6
Community welfare	1.9	2.2	1.3	2.9	1.4	1.8	1.8	1.8	2.0	2.1	1.3
Gifts and contributions to persons outside the family	1.0	1.6	2.1	.9	2.0	1.4	1.3	1.4	2.2	1.2	2.2
Miscellaneous items	.6	.7	.8	.9	.8	.9	1.0	.6	1.0	1.8	1.5
Total current expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

A tabulation of the average expenditures of the families studied in the 11 towns reveals a remarkable similarity among the percentage distributions of expenditures in the different towns. The variations in the percentage spent for food and clothing are small, and can in part be explained by variations in family size. In Concord, Conway, and Littleton a relatively large proportion of expenditures was allotted to expenditures for transportation. The higher proportion in Concord is probably due to the margin available for expenditures of this type resulting from the relatively high incomes and small families in Concord. In Conway and Littleton where there are no trolleys and busses run infrequently, an individually owned automobile is more important to the family than in a city where community transportation facilities are more satisfactory. In the towns in the population group of less than 10,000, 53 percent of the families who were studied owned cars; in the towns with a population of 10,000 to 20,000, 46 percent of the families owned cars. In the cities in the 20,000 to 50,000 group, 42 percent of the families owned automobiles. In Manchester only 39 percent of the families owned cars.

The averages given in table 3 bring together a very wide range in the percentage distribution of expenditure by different families. For example, among the 147 families visited in Manchester the average

proportion of total current expenditures which was devoted to food was 34.5 percent. However, the proportion of money spent for food varied among individual families from 12.3 to 62.0 percent of total current expenditures. Among the 99 families visited in Conway the average proportion spent for food was 35.4 percent, but proportions varied from 17.9 to 64.7 percent in individual families.

A classification of the families studied according to level of consumption shows striking and consistent differences in the percentage of total expenditures for food and for transportation in the upper and lower levels, and less consistent differences in the percentage spent for house furnishings and equipment. The differences in the percentage spent for food are the result both of lower incomes and of larger families at the lower consumption level.

Table 4.—Percentage Distribution of Expenditures by Families of Classified Consumption Levels in 1933–34, by Size of Town

Item	Over 50,000 population [1]		20,000–50,000 population [2]		10,000–20,000 population [3]		Under 10,000 population [4]	
	Families with total expenditure per consumption unit of—							
	Under $400	$400 and over	Under $400	$400 and over	Under $400	$400 and over	Under $400	$400 and over
Number of families	73	74	162	137	244	246	105	93
Average number of members in economic family	4.73	2.95	4.71	2.80	4.43	2.68	4.54	2.58
Total current expenditures	$1,327	$1,469	$1,128	$1,473	$1,124	$1,378	$1,055	$1,285
Percentage distribution								
Food	38.1	31.3	39.4	28.7	38.2	30.7	38.6	29.3
Clothing	13.3	11.4	11.2	10.5	10.8	10.3	10.6	9.2
Housing	12.8	14.1	14.1	16.3	14.9	15.0	11.8	12.8
Household operation	13.9	12.3	13.3	14.5	14.1	15.5	14.6	14.1
Furnishings and equipment	3.8	5.5	3.1	3.3	2.8	3.6	2.9	5.6
Transportation	3.9	8.8	3.8	8.4	3.7	8.1	5.2	10.7
Personal care	1.9	2.0	2.1	1.9	2.1	1.9	2.0	1.9
Medical care	3.5	3.9	3.4	4.8	3.6	3.6	4.5	4.4
Recreation	4.7	5.9	5.2	5.8	5.3	6.1	5.0	5.8
Education	.4	.4	.3	.4	.4	.3	.3	.1
Vocation	.5	.7	.3	.3	.2	.2	.3	.5
Community welfare	2.1	1.8	2.4	1.8	1.9	1.7	1.7	1.8
Gifts and contribution to persons outside the family	.7	1.2	.7	2.4	1.1	2.2	.9	2.3
Miscellaneous items	.4	.7	.7	.9	.9	.8	1.6	1.5
Total current expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Manchester.
[2] Nashua, Concord, Berlin.
[3] Portsmouth, Keene, Dover, Laconia, Claremont.
[4] Littleton, Conway.

Ownership of Automobiles

THE differences in the percentages spent for transportation by families at the lower and upper consumption levels are directly related to the purchase and ownership of automobiles. Fewer families at the lower level owned automobiles than at the upper level (36 percent

as against 55 percent), and fewer purchased cars during the schedule year. In fact among the families with an expenditure per consumption unit of less than $400 only two bought new cars during the year, while 3 percent of the families in the upper group bought new cars. Only 5 percent of the 584 families at the lower expenditure level bought second-hand cars during the year, while 9 percent of the 550 families at the upper expenditure level bought such cars. A total of 101 automobiles were purchased by the 1,134 New Hampshire families during the year; 20 of these were new cars.

The number of automobiles purchased during the year by the families with an expenditure per consumption unit of less than $400 much more nearly corresponds to the number purchased by families at the higher consumption level in towns in the smallest population class than in the cities in other population classes. In the larger cities about twice as many cars were bought by families in the higher expenditure per consumption unit group as in the lower.

In the group of families with an expenditure per consumption unit of less than $400, the percentage of families owning automobiles varied from 50 in the smallest population group to 38 in the towns of 10,000 to 20,000 population, and from 31 in the towns of 20,000 to 50,000 population to 27 percent in Manchester.

Table 5.—Ownership of Automobiles in 1933–34 by Families of Classified Consumption Levels, by Size of Town [1]

Towns with population of—	Expenditure per consumption unit	Number of families	Families owning cars		Families purchasing new cars	Families purchasing second-hand cars
			Number	Percent		
Over 50,000 [2]	Under $400	73	20	39	0	4
	$400 and over.	74	38		4	5
20,000 to 50,000 [3]	Under $400	162	49	42	2	8
	$400 and over.	137	77		2	14
10,000 to 20,000 [4]	Under $400	244	91	46	0	13
	$400 and over.	246	132		9	20
Under 10,000 [5]	Under $400	105	49	53	0	9
	$400 and over.	93	55		3	11
Total		1,134	511	45	20	81

[1] Number of families owning or purchasing automobiles would differ from the number owned or purchased during the year since some families owned more than 1 car, and 1 family purchased more than 1 car.
[2] Manchester.
[3] Nashua, Concord, Berlin.
[4] Portsmouth, Keene, Dover, Laconia, Claremont.
[5] Littleton, Conway.

Table 6.—Ownership of Automobiles in 1933–34 by Families of Classified Consumption Levels, by Towns

Towns	Families with yearly expenditure per consumption unit of—								
	Under $400			$400 and over			Total		
	Total number of families	Families owning cars		Total number of families	Families owning cars		Total number of families	Families owning cars	
		Number	Percent		Number	Percent		Number	Percent
Manchester	73	20	27	74	38	51	147	58	39
Nashua	56	14	25	44	23	52	100	37	37
Concord	34	10	29	65	39	60	99	49	49
Berlin	72	25	35	28	15	54	100	40	40
Portsmouth	44	7	16	51	28	55	95	35	37
Keene	51	26	51	46	28	61	97	54	56
Dover	41	13	32	57	28	49	98	41	42
Laconia	50	19	38	50	29	58	100	48	48
Claremont	58	26	45	42	19	45	100	45	45
Littleton	53	23	43	46	26	57	99	49	49
Conway	52	26	50	47	29	62	99	55	56

Savings

THE figures presented in table 1 have shown that average income per family exceeded average expenditures for consumption goods per family in 10 of the 11 New Hampshire towns for which figures for 1933–34 were secured, and that in the eleventh town, Claremont, the average expenditures exceeded income by only $4. Such averages are not very significant unless one knows the percentage of families which suffered a net decrease in assets during the year and the percentage which enjoyed a net increase in assets during the year. Even though the group averages showed a net excess of income over expenditure, obviously some families spent more money from the bank than they saved, sold more property than they bought, or incurred more debts during the year than they paid off. About one-third of the families in each population group and at each expenditure level had either a net decrease in assets or a net increase in liabilities during the year.

Table 7.—Net Increase or Decrease in Family Assets and Liabilities in 1933–34, by Size of Town

Towns with population of—	Expenditure per consumption unit	Number of families	Families having net decrease in assets and/or increase in liabilities		Families having net increase in assets and/or decrease in liabilities	
			Number	Percent	Number	Percent
Over 50,000 [1]	Under $400	73	29	39.7	43	58.9
	$400 and over	74	27	36.5	45	60.8
20,000 to 50,000 [2]	Under $400	162	45	27.8	114	70.8
	$400 and over	137	37	27.0	95	68.8
10,000 to 20,000 [3]	Under $400	244	91	37.3	145	59.4
	$400 and over	246	81	32.9	152	61.8
Less than 10,000 [4]	Under $400	105	35	33.3	66	62.9
	$400 and over	93	29	31.2	59	63.4
Total		1,134	374	33.0	719	63.4

[1] Manchester.
[2] Nashua, Concord, Berlin.
[3] Portsmouth, Keene, Dover, Laconia, Claremont.
[4] Littleton, Conway.

Labor Requirements in Cement Production

By Bernard H. Topkis, of the Bureau of Labor Statistics [1]

WHAT effect does construction have upon the creation of jobs? What are the employment possibilities involved in the construction of buildings, dams, bridges, roads, hydroelectric work, and the great variety of other projects undertaken under the auspices of the Federal Government?

The Bureau of Labor Statistics compiles monthly figures showing the volume of employment, the amount of pay rolls, and the man-hours worked at the site of Federal projects. These figures, however, measure only direct employment. They do not show the "behind-the-lines employment" created through the purchase of materials and extending back through mines, factories, and railroads.

The theory that public works will aid in overcoming depressions is based on the assumption that private industry will be stimulated as a result of the flow of orders for the materials to be used on the public projects. To measure the effects of such orders on private employment, the Bureau of Labor Statistics has been conducting a series of man-hour studies for basic materials used on the various Federal construction programs. The first of these studies covered the labor requirements in the steel industry. The results of this analysis were summarized in the May 1935 issue of the Monthly Labor Review. The present study, the second in the series, is concerned with the labor requirements in the cement industry.

Process of Cement Manufacture

Portland cement [2] derives its name from the resemblance between set cement and a well-known English building stone obtained from the Isle of Portland. It was first manufactured on a commercial scale in the United States in the early seventies of the last century. As the new product had many advantages over natural cement, the growth of the industry has been rapid. In 1934, there were in the United States 169 plants, with a total invested capital exceeding $566,000,000 and capable of producing 269,000,000 [3] barrels of cement a year.

[1] Assisted by John A. Ball, under the direction of Herman B. Byer, chief of the Division of Construction and Public Employment.

[2] Portland cement is the product obtained by finely pulverizing clinker produced by calcining to incipient fusion an intimate and properly proportioned mixture of argillaceous and calcareous materials, with no additions subsequent to calcination excepting water and calcined or uncalcined gypsum. (The Encyclopedia Americana.)

[3] Portland Cement Association Cement and Concrete Reference Book, 1935.

Various kinds of raw materials are consumed in the manufacture of portland cement. The cement is manufactured from a mixture of two types of materials: Limestone rock or similar material, such as chalk or marl which is nearly pure lime, and another material supplying the other ingredients needed, which is usually clay or shale. Sometimes blast-furnace slag is used in conjunction with limestone. The limestone or similar material supplies the calcareous materials and the clay or shale supplies the argillaceous or clayey materials. It is essential that the mixed raw materials contain exact proportions of these ingredients. This proportion differs slightly with different materials, but is generally 75 to 80 percent of carbonate of lime and 20 to 25 percent of anhydrous clay.[4]

During the process of manufacture, a small amount of gypsum is required. This material, either calcined or in its native state, is added during the grinding of the cement clinker in order to control the hardening period.

Powdered coal is ordinarily used to furnish the heat necessary in the kilns for the burning of the cement, but oil and gas are sometimes used. Electric power for the cement plant may be generated at the mill or purchased from electric generating stations. A small amount of steel is consumed in the form of steel balls used for grinding purposes and of steel wire for tying the cloth sacks and paper bags in which the finished product is shipped. Explosives for blasting operations in the quarry, firebrick for kiln relining, lubricants for the machinery, and cloth sacks and paper bags for shipping purposes are also used.

The most important raw materials consumed in the manufacture of cement are limestone and clay or shale. These are usually obtained in a quarry adjacent to the cement plant. After the quarrying, the raw material goes through three distinct and separate operations. The first process is a mechanical one and includes the assembling, preparing, grinding, and amalgamating of the raw materials. The rock is crushed by large gyratory or roll crushers which reduce the huge masses of quarried rock to small pieces ready for the pulverizing or grinding machines. Before going to these machines, the rock is passed through dryers to remove moisture which would otherwise prevent efficient pulverization.[5] Before the raw materials have been pulverized, they are mixed in proper proportions by means of automatic weighing machines.

The second process is chemical, during which the material prepared by the first process is calcined or roasted at a high temperature to cause the chemical combination of the various ingredients. In this process, the pulverized raw material undergoes chemical transforma-

[4] The Encyclopedia Americana, New York, 1927, vol. 22, p. 398.
[5] This process takes place only in mills using the dry process of manufacture.

tion to form cement clinker. This is accomplished by using rotary kilns. These kilns, which may be as wide as 12 feet and more than 400 feet long, are inclined at a pitch of about three-fourths of an inch per foot and rotate slowly. The fuel used to heat the kiln is usually pulverized coal, fed in at the discharge end of the kiln and igniting instantly. Upon entering the kiln at the upper end, the raw material continues to gather heat until the hot zone is reached, where the chemical combination forming the portland cement clinker takes place. The hot clinker, after it drops out of the kiln, is conveyed to rotary or stationary coolers.

The third process is partly mechanical and partly chemical, in which the clinker, together with a small amount of retarding agent, is reduced to a fine powder. This process and the machines used therefor are practically the same as those used for the grinding and pulverizing of the raw material. After the cement has been ground, it is deposited in bulk bins and complete tests are made for fineness, setting, soundness, strength, and chemical analysis. When these tests have been completed, the cement is ready for packing and shipment.[6]

There are two methods of cement manufacture—the dry process and the wet process. These differ in the manner of treating the ground raw material from which the clinker is produced. In the dry process, the raw materials are pulverized in the dry state. In the wet process, the raw materials are crushed and afterwards pulverized in water, resulting in a slurry instead of a dry powder.[7] The wet process affords economies in grinding, the material is easier to handle, and there is less dust. However, more fuel is required for the kilns, more coal must be ground, the kiln capacity must be greater, and some power is needed to agitate the slurry.[8] In the wet process, the raw mixture can be accurately proportioned with less trouble than in the dry process.

Altogether, some 80 operations are required to produce the finished product. During every stage of manufacture, rigid physical and chemical tests are made, in order to insure a uniform and standard product.

Man-Hours Required in Production and Transportation of Raw Materials and Supplies

IN THIS study an attempt is made to determine the number of man-hours required to manufacture 100 barrels[9] of cement in 1934. The analysis was made in cooperation with the Portland Cement Associa-

[6] Willis, H. P., and Byers, J. R.: Portland Cement Prices. New York, Ronald Press Co., 1924.

[7] Mersereau, S. F.: Materials of Industry. New York, McGraw-Hill Book Co., 1931, ch. 2.

[8] Glover, J. G., and Cornell, W. B.: Development of American Industries. New York, Prentice-Hall Inc., 1932, ch. 23.

[9] A barrel of cement weighs 376 pounds; a bag or sack of cement weighs 94 pounds.

tion. The study included the records of 102 plants producing more than 58,000,000 barrels of cement in 1934. These mills were operating at 36.6 percent of their annual capacity of 158,853,928 barrels. The cement mills covered in the study represented 62 percent of all the mills in the United States and their output in 1934 was 75 percent of the total production.

In its analysis of labor requirements the study accounts for the man-hours necessary to produce the raw materials and to manufacture the finished product. An estimate also was made for the employment created in transporting the raw materials to the mill and the finished product to the site of construction.

Wide differences in labor requirements were found to exist among the individual mills. These differences, for the most part, were caused by the type of manufacturing process followed (wet or dry), location of the mills, plant capacity, and rate of daily operation. In measuring labor requirements the effect of each of these various factors was analyzed.

As a first step in determining the labor required in the production of 100 barrels of cement, an estimate was made of the man-hours required to produce and transport the materials consumed. Since the cement mill usually operates an adjacent quarry to secure limestone, clay, or shale, quarrying is regarded as part of cement-mill operation, and the labor requirements for quarry products are therefore included. Lack of information prevented the making of estimates for all materials consumed, but the lack of man-hour estimates for a few materials used only in small quantities has only a slight effect on the total estimate of labor requirements. It was not found possible to estimate employment created by minor purchases made by the cement mills, such as repair parts, lubricants, explosives, new sacks, etc. Nor was it possible to estimate employment created by the necessity of replacing equipment worn out in the process of manufacture. Those materials for which it was found possible to determine the labor requirements are listed below. Field studies and data available to governmental agencies were utilized in arriving at these estimates. Care should be exercised, however, in the application of these figures to any specific plant because methods of extraction, manufacture, and transportation differ greatly among individual producers. The quantities of these materials and the man-hours required in the production of 100 barrels of cement are as follows:

	Man-hours required
Gypsum (0.6 ton)	0.3
Coal (6.25 tons)	10.3
Power (2,210 kilowatt-hours)	2.65
Steel (0.028 ton)	.8

In order to control the setting time of cement, gypsum, either calcined or in its native state, is necessary. The amount used varies, depending upon the degree of purity of the raw gypsum.[10] Figures procured from leading gypsum firms indicate that 0.525 man-hour is required to produce a ton of gypsum. Consequently, the 0.6 ton of gypsum consumed in manufacturing 100 barrels of cement creates 0.3 hour of employment.

In this study, it was estimated that 0.028 ton of steel balls and steel wire is used in the production and shipment of 100 barrels of cement. According to the man-hour study for the steel industry made by the Bureau of Labor Statistics, the production of these materials requires 0.8 of an hour of labor.

Approximately 6.25 tons of powdered coal are necessary to furnish the heat required in the rotary kilns for the production of 100 barrels of cement. Although some of the mills covered in this study, by reason of their location, used oil and gas as heating agents,[11] an estimate of labor requirements was made only for coal. The records of the Bureau of Mines for 1934 indicate that the output of bituminous coal averaged 4.40 net tons per man per day. The average time worked by the soft-coal miners during the year was 7.27 hours per day. The output per man per hour was 0.605 ton and 1.65 man-hours were needed to mine a ton of bituminous coal. Approximately 10.3 hours of labor were thus required to mine the 6.25 tons of coal consumed in the manufacture of 100 barrels of cement.

According to the Mineral Market Report of the Bureau of Mines,[12] the operation of the manufacturing plant consumes 2,210 kilowatt-hours of electricity in the production of 100 barrels of cement. It was ascertained that nearly half of the total cement produced in 1934 in the 102 plants was manufactured in mills utilizing current generated in the mill by waste-heat boilers. Therefore, taking into consideration the 1934 output of all 102 plants, the production of 100 barrels of cement necessitated, on the average, the purchase of 1,105 kilowatt-hours of electricity.[13]

In generating electric power, the chief material consumed is coal. Oil and gas are sometimes used for fuel but inasmuch as no satisfactory records are available for measuring labor required in producing oil and gas, the study assumed all the fuel to be coal.[14] The records of the United States Geological Survey show that in 1934 an average

[10] Glover, J. G., and Cornell, W. B.: Development of American Industries. New York, Prentice-Hall, Inc., 1932, ch. 23.

[11] Of the 102 plants, 71 (with an output of nearly 40,000,000 barrels of cement in 1934) used coal; 31 (with a production of less than 19,000,000 barrels) used oil or gas.

[12] Dec. 17, 1935.

[13] For man-hours created in plants generating their own power, see the section treating labor requirements in the cement mill.

[14] The records of the U. S. Geological Survey indicate that in 1934, of power generated by fuel, 82.3 percent was generated by coal, 6.6 percent by oil, and 11.1 percent by gas.

of 1.47 pounds of coal was needed to generate a kilowatt-hour of electricity. The Bureau of Mines records indicate that 1.65 man-hours of labor were required to mine a ton of bituminous coal in 1934. Consequently, 1.34 hours were needed to produce the fuel necessary to generate 1,105 kilowatt-hours of electricity. However, according to the records of the United States Geological Survey, of the power consumed in 1934, 37.4 percent was generated by water power. An adjustment for this factor reduces the estimate of labor for fuel requirements to 0.839 man-hour.

It is estimated that labor created in the generating station through the production of 1,000 kilowatt-hours of electricity is 2.5 hours in old plants and 0.4 hour in new plants. In the study, it was assumed that nine twenty-seconds of all generating stations in the United States were new and thirteen twenty-seconds were old.[15] Using this classification, a weighted arithmetic mean shows that the production of 1,105 kilowatt-hours of electricity creates 1.64 man-hours of work for 1,000 kilowatt-hours or an equivalent of 1.81 hours for 1,105 kilowatt-hours. Consequently, the total labor involved in producing the fuel and generating electricity at the plant accounts for 2.65 hours of employment for each 100 barrels of output.

On the average, therefore, raw materials, other than limestone, clay, or shale, required in the production of 100 barrels of cement account for 14.05 hours of labor. Employment, however, is also created by the transportation of materials to the manufacturing plant. The statistics of railroad operating expenses compiled by the Interstate Commerce Commission and the Bureau of Railway Economics indicate that approximately 50 percent of railroad operating revenue is expended for salaries and wages. In 12 representative cement mills in 1934, the average transportation charge for coal was $1 per ton, for gypsum $2.25 per ton, and for steel $10 per ton. Using these figures, transportation charges for raw materials used in the production of 100 barrels of cement were $8.39.[16] Dividing half these charges by 63.5 cents, the average hourly wage rate for railroad employees in 1934, an estimate of 6.6 man-hours was obtained.

Man-Hours Required in Manufacturing and Cement-Mill Operations

In 1934 the 102 mills covered in this study produced more than 58,000,000 barrels of cement. Manufacturing and mill operations in the production of this cement resulted in 31,974,849 hours of employment. Table 1 shows the total number of man-hours involved in

[15] According to an Interim Report (1935) in the National Power Survey of the Federal Power Commission, the capacity of steam electric generators in the major electric utility stations in the United States in 1934 was 22,044,199 kilowatts. The capacity of steam electric generators installed prior to 1926 was 12,745,249 kilowatts and the capacity of steam electric generators installed between 1926 and 1934 was 9,298,950 kilowatts.

[16] Included in this figure is an estimate for the transportation of 0.51 ton of coal used in the generation of electric power.

each of the various operations at the cement mill and gives the average number of man-hours required in each operation to produce 100 barrels of cement in 1934. The estimate of man-hours per 100 barrels is based on a weighted arithmetic mean of the man-hours required for each operation in the 102 plants. It should be noted that in many plants man-hours per 100 barrels show large deviations from the average. Factors which bring about lower labor requirements in some plants are economies in the use of raw materials, better plant location, higher rates of operation, modern manufacturing equipment, and greater efficiency in management.

Table 1.—Man-Hours Required in Manufacture of Cement, 1934

Class of work	Man-hours per 100 barrels	Total man-hours (102 plants)
Total	55.0	31,974,849
Quarrying	7.7	4,478,875
Processing	18.0	10,485,586
Shipping	6.3	3,662,391
Maintenance	8.5	4,922,623
Mill overhead	7.1	4,123,518
Administration	7.4	4,301,856

Quarrying operations.—In the 102 plants covered for the year 1934, quarrying operations accounted for 4,478,875 hours of employment. The production of 100 barrels of cement required 24.5 tons of limestone and 6.75 tons of clay or shale. The average amount of labor necessary to produce 31.25 tons of limestone and clay or shale in 1934 was 7.7 hours. The range in individual plants was from 2.1 to 16.7 hours.

Processing operations.—Processing the cement produced by the 102 plants accounted for 10,485,586 hours of employment in 1934. Of this total, 3,045,922 hours were required in the raw departments where the raw materials are crushed and ground into a fine powder. The burning of the pulverized raw materials in the clinker departments required 2,694,996 hours. In the finishing departments where the cement clinker is ground and pulverized into finished cement 1,809,369 man-hours were necessary. The coal-mill departments where the fuel for heating the kilns is prepared accounted for 843,166 hours. In providing the energy for the operation of the cement plants the power departments utilized 2,092,133 man-hours in 1934.

A summary of the total man-hours and the average number of man-hours per 100 barrels for each department of processing is given below:

	Man-hours (102 plants), 1934	*Average number of man-hours per 100 barrels*
Raw department	3, 045, 922	5. 2
Clinker department	2, 694, 996	4. 6
Finishing department	1, 809, 369	3. 1
Coal mills	843, 166	1. 5
Power department	2, 092, 133	3. 6
Total	10, 485, 586	18. 0

The average labor per 100 barrels of cement required for processing was 18.0 hours. The raw department accounted for 5.2 hours, showing a range from 1.2 hours to 16.9 hours in individual plants. In the clinker department, average man-hours per 100 barrels were 4.6; the most efficient plants required only 1.8 hours and the least efficient, 11.0 hours. The finishing department accounted for an average of 3.1 hours per 100 barrels produced and the range in individual plants was from 0.8 to 7.2 hours.

Each 100 barrels of output in 1934 furnished an average of 1.5 hours of employment in the coal mill. Variations in the labor requirements among the individual cement plants for the operation of this department are caused by the nature of the fuel used in the manufacturing process. Whenever oil or gas is utilized, less labor is required. The average figure, 1.5 man-hours, has been computed on the basis of the production of all plants without regard to the type of fuel used.

The weighted arithmetic mean of labor requirements in the power departments of all plants was 3.6 man-hours per 100 barrels of output. Fifty-one mills which developed the power used in the manufacturing process required an average of 5.8 man-hours. Labor requirements in the remaining 51 mills which purchased power from electric generating stations was 1.2 hours.

Shipping.—After the cement has been manufactured, it is stored in bulk in bins and silos and held ready for shipment. Shipment may be in bulk or in paper or cloth sacks. The total number of man-hours of employment in the shipping departments of the 102 mills in 1934 was 3,662,391. Requirements in individual plants per 100 barrels of cement ranged between 3.7 and 10.6 hours, with an average of 6.3 hours for all plants. The range in man-hours is caused by some mills shipping larger proportions of their output in bulk. Inasmuch as cement shipped in bulk is transferred directly from the storage bin to the railroad car or truck, less handling is necessary. Shipment in paper bags requires less labor than in cloth sacks. Cloth sacks may be used from 12 to 13 times; when they are returned to the plant, they must be cleaned, repaired, and stored.

Maintenance.—Maintenance work in the cement mill includes the labor of the yard, shop, and repair gangs. It also takes into account the labor required for the general overhauling of the machinery and kiln relining which occurs during the intervals of shut-down. In 1934, maintenance work in the mills covered by the study provided 4,922,623 hours of employment. The average time which could be charged to the production of 100 barrels of cement was 8.5 man-hours. Work in the yard required 2.5 hours, that in the shop 2.4 hours, and repairs 3.6 hours.

The following table summarizes the total man-hours in 1934 charged to maintenance and the average number of man-hours required per 100 barrels:

	Man-hours (102 plants), 1934	*Average number of man-hours per 100 barrels*
Yard	1, 422, 487	2. 5
Shop	1, 397, 878	2. 4
Repair gang	2, 102, 258	3. 6
Total	4, 922, 623	8. 5

Mill overhead.—Labor chargeable to mill overhead accounted for 4,123,518 man-hours of work in 1934. In the production of 100 barrels of cement an average of 7.1 hours of overhead labor was necessary. Of this figure, mill office employees accounted for 1.5 hours, storeroom employees 0.6 hour, laboratory staff 2.1 hours, superintendents and foremen 1.5 hours, watchmen 0.8 hour, and miscellaneous labor 0.6 hour.

Data showing the total man-hours charged to overhead and the average number of man-hours per 100 barrels of output are given below:

	Man-hours (102 plants), 1934	*Average number of man-hours per 100 barrels*
Mill office	895, 019	1. 5
Storeroom	356, 312	. 6
Laboratory	1, 205, 617	2. 1
Superintendents and foremen	864, 580	1. 5
Watchmen	475, 485	. 8
Miscellaneous labor	326, 505	. 6
Total	4, 123, 518	7. 1

Administration.—In addition to determining the labor requirements in production, an estimate was made of the employment created by the operation of the general offices and selling organizations of the cement mills. Inasmuch as the reports submitted to the Portland Cement Association did not supply these data, a study of administrative labor in 12 representative mills was made. The results of this investigation indicated that administrative employees worked, as a rule, 2,000 hours a year, on the basis of a 40-hour week for 50

weeks. On this basis the total number of administrative hours worked in the 12 plants during the year was determined. By dividing the total administrative hours worked by the annual capacity of the 12 plants, an estimate of 3.0 man-hours of administrative labor per 100 barrels of output was obtained. This estimate, however, applies only when the plants are operating at capacity. Inasmuch as the 102 plants covered in the survey operated at 36.6 percent of capacity in 1934, administrative labor per 100 barrels would be greater. Adjusting for this factor it was indicated that administrative labor accounted for 7.4 hours per 100 barrels of output in 1934.[17] The estimated total number of administrative man-hours in the 102 mills in 1934 was 4,301,856.

Transportation.—The transportation of the finished cement may be by water, rail, or road. The major portion of the country's cement shipments, however, is transported by the railroads. In 1934, according to the Interstate Commerce Commission,[18] 12,068,506 tons of cement were shipped by rail at a total freight charge of $31,279,520. This represented an average charge of $48.70 for each 100 barrels. By dividing half the freight charges[19] by the average hourly wage for railroad employees in 1934, an estimate of 38.4 man-hours per 100 barrels was obtained. In addition to the rail transportation of the cement, hauling of the product from the railhead to the site of construction is necessary. Based on the records of the Bureau of Public Roads, the average haul is 3.5 miles and return. This haul requires 2.3 hours per 100 barrels. Unloading the cement from the railroad car and loading the truck accounted for 10.0 man-hours. Therefore, rail transportation, hauling the product from the railhead to the construction site, and unloading operations required 50.7 hours of labor per 100 barrels of cement.

The labor necessary in the various stages of cement production and the labor involved in transportation to the construction site are summarized below:

	Man-hours per 100 barrels
Raw materials, production and transportation	20.6
Quarrying, manufacturing, shipping, and administration	55.0
Transportation:	
From mill to rail head	38.4
From rail head to construction site	12.3
Total	126.3

[17] Approximately 10 percent fewer employees are engaged in administrative duties when mill operation is less than 50 percent of capacity than when operation is greater than 50 percent.

[18] Interstate Commerce Commission. Bureau of Statistics. Freight commodity statistics, year ended Dec. 31, 1934. Washington, 1935.

[19] The statistics of railroad operating expenses compiled by the Interstate Commerce Commission and the Bureau of Railway Economics indicate that approximately 50 percent of railroad operating revenue is expended for salaries and wages. See p. 569.

Plant Variations in Man-Hour Requirements

THE survey indicates that 126.3 hours of employment are created for every 100 barrels of cement delivered to the site of construction. This figure is a weighted arithmetic mean of the man-hours in the 102 plants, and as such represents average labor requirements. Variations from the average have been noted in individual plants at the different stages of manufacture. Differences in labor productivity among individual plants occur in all industries and in the cement industry they are particularly noticeable. The study consequently analyzed the effect on man-hour requirements resulting from type of manufacturing process, rate of daily operation, and plant capacity.

Variations due to manufacturing process.—Of the 102 plants covered, half used the dry process of manufacture and half used the wet process. The output of the dry-process mills in 1934 was 31,400,000 barrels. In the plants using the wet process, approximately 26,700,000 barrels were produced. Employment in the processing stage of manufacture approximated 6,300,000 man-hours in the dry-process mills and 4,200,000 man-hours in the wet-process plants.

Inasmuch as the methods of production differ only in the raw department and clinker department, the analysis of the labor requirements in the two types of mill was limited to the processing stage of manufacture. The investigation showed that plants using the dry process of manufacture required 20.0 man-hours in processing each 100 barrels of output. On the other hand, only 15.8 hours were needed in the wet-process mills. This differential in labor requirements, however, cannot be imputed wholly to the difference in the process of manufacture. The man-hours required in the power departments of the dry-process plants were greater because a larger number developed their own power instead of purchasing electricity from generating stations. More hours of labor were also required in the coal-mill departments of the dry-process plants because a larger number used coal instead of oil or gas for heating purposes. An adjustment for these factors, which are not the results of the process of manufacture, would reduce the differential in man-hours per barrel. Wet-process plants have, for the most part, been of recent construction. The advantages of technological improvements have, therefore, been partially responsible for the greater labor productivity in these mills.[20]

Variations due to rate of operation.—The rate of operation in a cement mill is determined by the number of kilns in operation. A kiln cannot be operated except at capacity. Consequently, in a 5-kiln mill, for example, only five different levels of daily operation are possible: 20 percent, 40 percent, 60 percent, 80 percent, and 100 percent.

[20] It should be noted that the above analysis has been limited to the labor requirements in the processing stage of manufacture. No account has been taken of the labor necessary to produce the different amounts of fuel used for heating purposes in the two processes.

In order to ascertain the relationship between rate of operation and labor requirements, a study of 12 cement plants was made. The sample included mills equipped with 5 kilns, 3 kilns, and 2 kilns.

The survey indicated that labor requirements per barrel of cement are reduced as the number of kilns in operation is increased. A 5-kiln plant, with 1 kiln (20 percent) in operation requires 140 percent more labor to produce 100 barrels of cement than when operating with 5 kilns (100 percent). A 2-kiln mill needs 48 percent more labor with 1 kiln (50 percent) in operation than when 2 kilns (100 percent) are at work. Man-hours per 100 barrels chargeable to mill overhead labor, which is relatively constant at all levels of operation, showed the greatest fluctuation. In a 5-kiln plant, mill overhead labor per 100 barrels is 228 percent greater when operating at 20 percent of capacity (1 kiln) than at 100 percent (5 kilns).

Variations due to plant capacity.—The labor required to produce 100 barrels of cement in 88 cement plants classified according to their annual capacity is shown in table 2. It will be observed that labor efficiency in the manufacturing processes is greater among the larger plants. Mills having an annual capacity of more than 3,000,000 barrels required 40 hours of labor to produce 100 barrels of cement. On the other hand, in mills with a capacity of less than 1,000,000 barrels, 64.5 hours were necessary. Fifty-eight of the eighty-eight plants had an annual capacity of between 1,000,000 and 2,000,000 barrels.

Table 2.—Average Number of Man-Hours Required to Produce 100 Barrels of Cement in 88 Mills in 1934, by Annual Plant Capacity

Capacity [1]	Number of plants	Average man-hours per 100 barrels			
		Total	Quarrying	Manufacturing [2]	Shipping
All plants	88	47.6	7.7	33.6	6.3
Over 3,000,000 barrels	4	40.0	6.2	27.8	6.0
2,500,000 to 2,999,999 barrels	6	47.5	7.0	34.1	6.4
2,000,000 to 2,499,999 barrels	10	49.3	9.3	33.0	7.0
1,500,000 to 1,999,999 barrels	29	48.5	6.7	35.5	6.3
1,000,000 to 1,499,999 barrels	29	56.0	8.3	41.0	6.7
Under 1,000,000 barrels	10	64.5	13.2	43.7	7.6

[1] Annual capacity has been measured by multiplying by 4 the output for the 3 highest consecutive months.
[2] Does not include administrative labor.

Labor Requirements, by Geographic Areas

As a result of the relatively high transportation charges compared with the value of the finished product, the manufacture of cement in this country has been developed as a local industry. The market for cement is usually limited to territory in the proximity of the manufacturing plant. The 164 mills in the United States are located in

35 States. A grouping of the cement mills covered in this study into geographic areas indicates substantial differences in the labor requirements in the various districts. The influence of such factors as rate of operation, method of manufacture, type of equipment, as well as differential advantages with respect to raw-material deposits, is reflected in the varying labor requirements. The average number of man-hours necessary to produce 100 barrels of cement in 1934, in 102 plants, grouped by geographic areas, is given in table 3.

Table 3.—Average Number of Man-Hours Required to Produce 100 Barrels of Cement in 1934, by Geographic Areas

Area	Number of plants	Production, 1934 (barrels)	Man-hours per 100 barrels			
			Total man-hours	Quarrying	Manufacturing [1]	Shipping
All areas	102	58,133,187	47.6	7.7	33.6	6.1
Pacific	12	9,140,724	37.4	7.0	25.7	4.7
Lehigh Valley	14	8,684,723	44.8	6.6	32.0	6.2
Southwest	12	5,437,896	46.5	5.7	33.8	7.0
Middle West	36	21,511,011	49.3	8.1	35.2	6.0
Southeast	13	6,376,250	53.9	9.7	37.9	6.3
Northeast	15	6,982,583	55.7	8.3	40.7	6.7

[1] Does not include administrative labor.

The smallest number of man-hours per 100 barrels, 37.4, was indicated for plants located in the Pacific States. In manufacturing operations, mills in this territory required 25.7 hours as compared with 33.6 hours for the 102 plants. The average of 55.7 man-hours per 100 barrels for mills in the States of Pennsylvania (excluding the Lehigh Valley area), West Virginia, Maryland, New York, and Maine, comprising the northeastern district, was the highest of all of the geographic areas. The plants located in the Middle West, which accounted for more than 37 percent of the total output of the 102 mills covered for 1934, required an average of 49.3 hours per 100 barrels. In the Lehigh Valley district an average of 44.8 hours was needed.

Trend of Productivity, 1925 to 1934

THE trend in the cement industry has been toward a greater productivity of labor. Technological improvements have contributed to a greater output per man-hour of employment. In table 4, the total man-hours required to produce 100 barrels of cement and production in barrels per 100 man-hours are given for each year from 1925 to 1934. An index of labor productivity has also been calculated, using as a base the output per man-hour in 1925.

Table 4.—Labor Productivity in Cement Mills, 1925 to 1934

Year	Number of plants	Average man-hours per 100 barrels [1]	Production (barrels per 100 man-hours)	Index of labor productivity
1925	122	61.1	164	100.0
1926	127	58.7	170	104.1
1927	136	54.1	185	112.9
1928	139	50.3	200	121.5
1929	126	47.6	211	128.4
1930	119	44.8	223	136.4
1931	109	41.4	241	147.6
1932	106	43.1	233	141.8
1933	98	42.6	236	143.4
1934	109	41.3	242	147.9

[1] Includes quarrying labor and all manufacturing labor except labor for administration and shipping.

The productivity of labor increased by 47.9 percent between 1925 and 1934. In 1925 for every 100 man-hours of labor, 164 barrels of cement were produced; in 1934, 100 hours of employment accounted for 242 barrels. An increase in output per man-hour occurred in every year from 1925 to 1931. Since 1931, changes in productivity of labor have been slight. The figures in table 4 are somewhat distorted by reason of the varying number of plants included in different years. During the earlier years there was an increasing number of new plants, and during the later years, a decreasing number of less efficient plants.

Man-Hours of Labor, and Cement Used in Federal Construction Projects

CEMENT purchases account for a large share of the total expenditures for materials on the various construction projects of the Federal Government. From July 1933 to December 1935, more than 76,000,000 barrels of cement were used on projects financed either wholly or partially from the Public Works fund. On the basis of this survey, these purchases resulted in 96,000,000 man-hours of employment in cement mills, mines, carriers, and other industries.

The most significant contribution to the creation of this employment was made by public-road and street and road projects. Since the beginning of the program to December 1935, these projects have consumed approximately 51,500,000 barrels of cement. In producing this cement 65,000,000 man-hours of employment were created.

Another important project which played a part in creating employment in cement mills was Boulder Dam where 5,500,000 barrels of cement were used. The production and transportation of this cement led to the creation of more than 6,900,000 hours of employment. In the Tennessee Valley project, 7,900,000 barrels of cement have been purchased with a resulting indirect employment of 10,000,000 hours of labor. In the erection of Juniata Park, a low-cost housing project in Philadelphia, the 19,000 barrels of cement consumed resulted in 24,000 hours of indirect employment.

Wage Executions for Debt [1]

Part 2.—Characteristics of Debts and Debtors

By Rolf Nugent, John E. Hamm, and Frances M. Jones [2]

PART 1 of this study presented information concerning the frequency of wage executions for debt against the employees of certain industrial establishments in 31 urban areas, to determine some of the causes of differences in the frequency among the reporting establishments, and to compare the frequency of executions among employees in this sample with that among other occupational classes. In the present article are described some of the characteristics of the debts for which wage executions were brought, and of the debtors against whom they were brought.

Part 1 dealt largely with the total number of wage executions brought against employees of reporting establishments during the 12-month period from May 1, 1933, to April 30, 1934. Detailed information concerning wage executions was furnished only for the last 3 months of this period, and part 2 is based solely upon this 3-month sample.

The sample of wage executions covers 176 employers. As in part 1, however, the New York City administration and a large railroad company, which furnished data concerning wage executions against all employees in New York State, have been segregated. Not only the overwhelming size of these employers, but also their special occupational characteristics appeared to require that they be considered separately from other establishments which, with a few minor exceptions, were industrial enterprises. The remaining 174 employers are hereafter referred to as reporting industrial establishments.[3]

Kinds of Debt

An analysis, by number of executions and amount of debt, of the kinds of debt represented by wage executions reported by the 174 industrial establishments for the 3-month period is shown in table 1.

[1] This study, the first part of which was published in the February 1936 issue of the Monthly Labor Review, comprises a section of a larger study of consumer debt initiated under the direction of Mr. Nugent by the Consumers' Advisory Board of the National Recovery Administration and later continued and expanded by the Russell Sage Foundation. For a description of the area of the study and completed sections, see the Monthly Labor Review for February 1936 (p. 285).

[2] Miss Jones is a member of the staff of the Bureau of Labor Statistics. Mr. Nugent is the director and Mr. Hamm the assistant director of the Department of Remedial Loans of the Russell Sage Foundation.

[3] The distribution of reporting industrial establishments by size, geographic area, and other characteristics is shown by the tables in part 1 (Monthly Labor Review, February 1936).

The amount of debt was not reported in many instances. Also, one establishment in Birmingham reported identical amounts of debt and weekly wages for a large number of executions. The amount-of-debt figures for this group of executions were, therefore, discarded.[4] In order to estimate the total amount involved in each kind of debt, the average [5] reported amount of individual debts was multiplied by the total number of executions for that kind of debt. The estimated total debt used in computing percentages is the sum of the estimated amounts for each general class of debt. This sum differs slightly from the sum of the estimated amounts for all subdivisions and from the amount which would result from multiplying the total number of debts of all kinds by the average amount reported for all kinds of debt.

A wide range in amount was reported for certain classes of debt; the median amount frequently differed materially from the average; and the average amount varied materially among geographic areas. A considerable amount of error is, therefore, inherent in the method of estimating. More elaborate methods gave but slight assurance of greater accuracy, however, and the simple one has, therefore, been chosen. The error is not sufficient to invalidate the general conclusions to be drawn from the table.

Table 1.—Kinds of Debt Represented by Wage Executions Against Employees of Reporting Industrial Establishments, Feb. 1 to Apr. 30, 1934

Kind of debt	Executions		Amounts of debt represented by executions				
	Number	Percent of total	Number reporting amount	Average amount reported	Median amount reported [1]	Estimated total amount	Percent of total debt
Clothing	1,139	46	635	$21.58	$16.40	$24,579	30
Bankruptcy	194	8	194	15.72	15.00	3,049	4
Loans	186	7	157	57.35	35.00	10,667	13
Credit unions	3	-------	3	56.00	---------	168	-------
Industrial and commercial banks	22	-------	18	94.97	70.00	2,089	-------
Licensed lenders	56	-------	47	66.53	49.30	3,726	-------
Unlicensed lenders	79	-------	66	28.38	11.80	2,242	-------
Individuals and unidentified	26	-------	23	92.44	37.00	2,403	-------
Furniture and household appliances	178	7	111	48.44	37.63	8,622	10
Furniture	120	-------	86	45.58	31.20	5,470	-------
Radios	47	-------	15	45.99	50.00	2,162	-------
Refrigerators	5	-------	5	110.29	---------	551	-------
Washing machines	5	-------	5	43.23	---------	216	-------
Piano	1	-------	-------	-------	-------	-------	-------
Groceries and meats	171	7	137	20.03	9.03	3,425	4
Board and housing	127	5	101	55.50	29.00	7,049	8
Rent	83	-------	68	63.80	29.50	5,295	-------
Board	25	-------	19	42.24	13.83	1,056	-------
House repairs	17	-------	12	37.87	23.91	644	-------
Moving	2	-------	2	5.00	---------	10	-------

[1] Medians have been omitted where the amounts were reported for less than 7 executions.

[4] This establishment reported identical amounts of debt and wages for 220 wage assignments. Since all the assignments represented debts for clothing, it was assumed that some clothing merchants made a practice of taking and enforcing assignments for the amount of current wages only, regardless of the amount of the account.

[5] I. e., arithmetic mean. The word "average" will be used hereafter to refer to the arithmetic mean.

Table 1.—Kinds of Debt Represented by Wage Executions Against Employees of Reporting Industrial Establishments, Feb. 1 to Apr. 30, 1934—Continued

Kind of debt	Executions		Amounts of debt represented by executions				
	Number	Percent of total	Number reporting amount	Average amount reported	Median amount reported	Estimated total amount	Percent of total debt
Medical and burial expense	78	3	62	$44.53	$32.92	$3,473	4
Doctors	57		47	36.45	29.95	2,078	
Dentists	2		2	17.25		35	
Hospitals	2		2	90.45		181	
Drugs and medicine	4		2	9.97		40	
Eyeglasses	2		1	9.20		18	
Burial	11		8	100.34	60.95	1,104	
Jewelry	66	3	57	23.60	17.25	1,558	2
Automobile purchase and operation	66	3	56	47.64	13.00	3,144	4
Finance company	9		7	121.24	110.00	1,091	
Repairs	19		17	17.80	10.28	338	
Supplies	35		29	13.81	9.91	483	
Liability for injuries	2		2	555.95		1,112	
Hired car	1		1	4.40		4	
Miscellaneous	62	3	44	45.38	22.75	2,814	3
Attorney	29		23	26.52	21.50	769	
Collection agency	10		7	34.18	39.07	342	
Department store	4		2	10.32		41	
Sporting goods	4						
Coal	3		1	3.25		10	
Correspondence course	2		1	26.70		53	
Newspaper bill	2		2	5.11		10	
Professional services	1		1	10.70		11	
Building excavation	1		1	182.00		182	
Alimony	1		1	55.00		55	
Bonding fee	1		1	5.00		5	
Lot	1		1	221.00		221	
Damage suit	1		1	21.23		21	
Musical instrument	1		1	24.80		25	
Business debt	1		1	567.13		567	
Unidentified	233	9	124	64.88	21.65	15,117	18
Total	2,500	100	1,678	33.55	18.80	$83,519	100

The most remarkable feature of this analysis is the prominence of debts for clothing, which account for almost half of the total number of executions. The frequency of wage executions for clothing is due to the application, in recent years, of installment technique to this field of merchandising. Since repossession, which is the characteristic method of enforcing most installment contracts, is impracticable for clothing merchants, heavy reliance for collection is put upon wage assignments and court process. The large number of executions for jewelry debts, where similar conditions prevail, and the relatively small number of executions by automobile finance companies, which rely upon repossessions for enforcing contracts, are noteworthy.

The executions brought by referees in bankruptcy require special comment. All but one of these executions occurred in Birmingham. When a wage earner files a petition in bankruptcy, the Federal court appears to issue an order to the employer to withhold the current wages of the petitioner. The petitioner may claim an exemption of current wages, which varies between States, and it is probable

that many of these attachments were later released. However, because the petitioner must claim the exemption before his wages may be paid to him and because referees in bankruptcy may enforce payment of their fees in this manner, these orders of the Federal court have not been excluded. In view of their peculiar status, however, executions by referees in bankruptcy have been put in the miscellaneous group in subsequent tables.

The third largest number of executions was for loans. But this class includes a very heterogeneous group of obligations. The term "unlicensed lender" is used in the table to designate lenders operating in defiance of the law, who were known to charge very high rates of interest. Several of the unlicensed lenders whose names occurred as creditors in this sample have since been convicted in recent anti-loan-shark campaigns. Other subdivisions include several loan companies whose legality is questionable under local statutes, but whose business practices conformed to those of chartered or licensed companies in other States. The bank loans included under industrial and commercial banks presumably were made by personal-loan departments. Loans made by institutions whose business is similar to that of industrial banks but which are not incorporated under the banking law are also included in this group.

The number of executions brought by creditors whose business could not be identified remains large in spite of strenuous efforts to identify them by an examination of telephone and city directories and by correspondence with persons living or doing business in the same locality. Practically all of these executions were brought by individuals. A few may have been the agents of corporate or trade-name creditors.[6] Most of them however, were probably small grocers, landlords, boarding-house keepers, nurses, and midwives, who had extended credit, or friends and relatives who had lent money.

One of the notable characteristics of kinds of debt represented in our sample is the complete absence of executions by public-utility companies. This circumstance is partly fortuitous, because court actions have been instituted for telephone, gas, and electricity accounts in some jurisdictions. It may be concluded, however, that these are infrequent and that such creditors rely upon advance payments and suspensions of service as the principal means of collecting charges for service.

Clothing bills account not only for the largest number of executions, but also represent the largest part of the total debt. Claims of the

[6] The practice among installment merchants of bringing suit in the name of an employee or attorney appears to have been most common in New York City.

bankruptcy courts and claims for jewelry accounts, which were prominent with respect to number of executions, are much less important with respect to the amount of debt.

Size of Debt

TABLE 1 shows the average and median reported amounts of each kind of debt for the whole sample. The largest average amount among the general classes of debt is that for loans, although several subdivisions show considerably larger amounts. As might be expected, debts for automobile financing, refrigerators, and burial expenses are frequently large. The consistent tendency of the average to exceed the median amount of debt indicates that the average was influenced materially by a few large debts and that the bulk of the executions were for amounts less than the average.

Table 2 shows the distribution of debts by size classes for the whole sample and for several general classes of debt which appear to be sufficiently homogeneous to warrant such analysis. Unfortunately, these distributions by size classes are influenced by the exclusion of a large number of executions for which the amount of debt was not reported. The bulk of the executions excluded for this reason came from establishments in southern cities, and two-thirds of them represented clothing accounts. The effect of these exclusions is to understate the proportion of small debts for the whole sample.

Table 2.—Size of Debts Incurred for Specified Purposes, Represented by Wage Executions Against Industrial Employees, Feb. 1 to Apr. 30, 1934

Size of debt	All classes of debt		Clothing		Furniture		Jewelry		Loans		All others	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than $10	452	26.9	188	29.6	11	10.0	11	19.3	24	15.3	218	30.4
$10–$24.99	590	35.2	238	37.5	30	27.0	27	47.4	35	22.3	260	36.2
$25–$49.99	378	22.5	168	26.5	29	26.1	14	24.6	38	24.2	129	18.0
$50–$99.99	173	10.3	39	6.1	27	24.3	5	8.8	38	24.2	64	8.9
$100–$199.99	62	3.7	1	.2	13	11.7	------	------	16	10.2	32	4.5
$200–$499.99	17	1.0	1	.2	1	.9	------	------	5	3.2	10	1.4
$500 and over	6	.4	------	------	------	------	------	------	1	.6	5	.7
Total	1,678	100.0	635	100.0	111	100.0	57	100.0	157	100.0	718	100.0

Table 3 shows the average amount of debt represented by wage executions for all cities in which the amount of debt was shown for more than 10 executions.

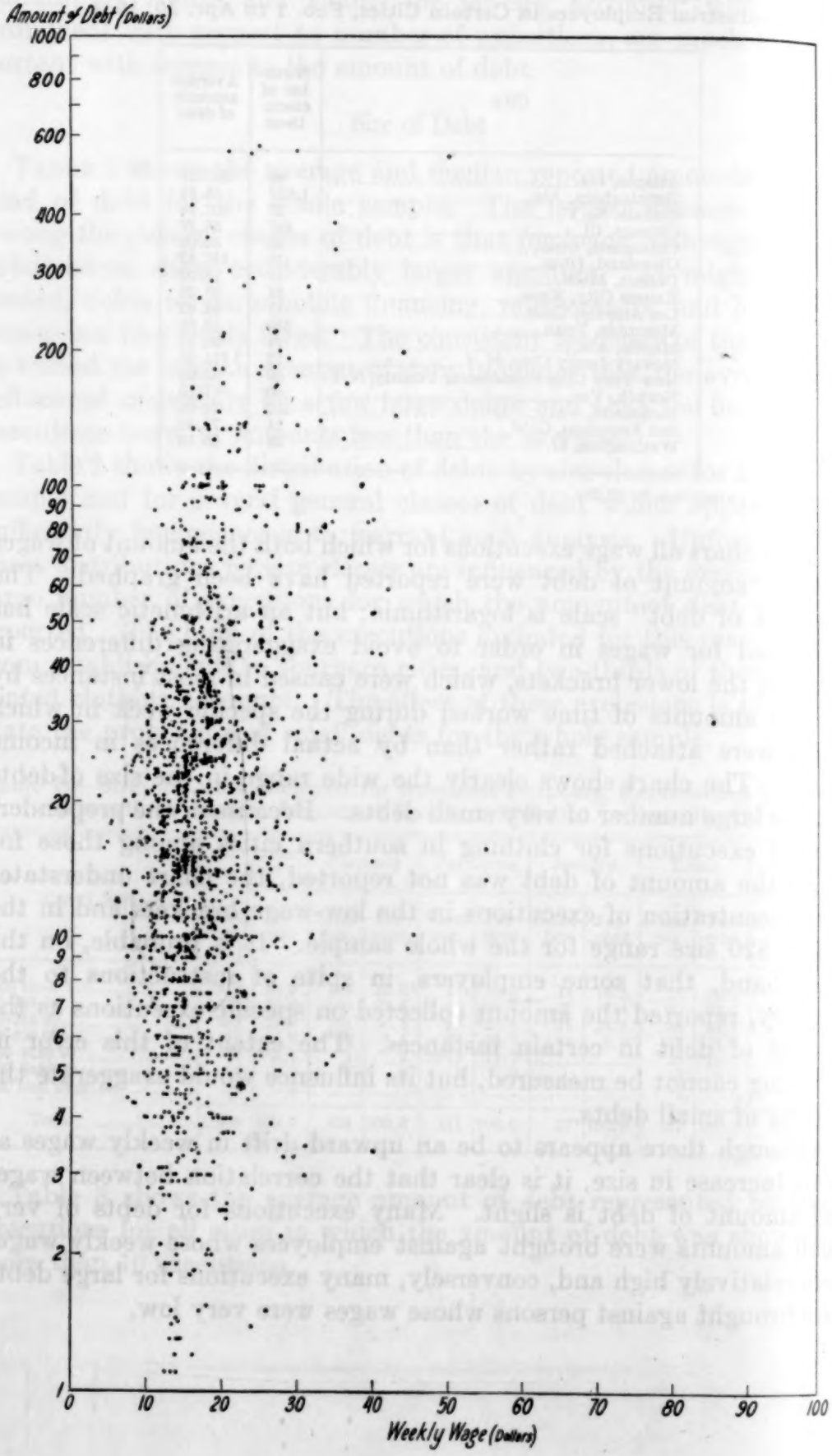
Table 3.—Average Amount of Debt Represented by Wage Executions Against Industrial Employees in Certain Cities, Feb. 1 to Apr. 30, 1934

City	Number of executions	Average amount of debt
Atlanta, Ga	46	$37.37
Birmingham, Ala	1,057	18.94
Buffalo, N. Y	20	107.24
Chicago, Ill	487	38.27
Cincinnati, Ohio	30	36.08
Cleveland, Ohio	15	147.42
Detroit, Mich	17	76.02
Kansas City, Kans	54	35.38
Los Angeles, Calif	17	33.62
Memphis, Tenn	389	18.62
Mobile, Ala	14	21.27
Newark-Jersey City, N. J	12	[1] 111.03
New York City-Westchester County, N. Y	59	85.03
Norfolk, Va	80	17.13
Richmond, Va	112	22.00
San Francisco, Calif	11	75.42
Washington, D. C	28	55.18

[1] Excluding 1 execution for $3,289.

In the chart all wage executions for which both the amount of wages and the amount of debt were reported have been graphed. The "amount of debt" scale is logarithmic; but an arithmetic scale has been used for wages in order to avoid exaggerating differences in wages in the lower brackets, which were caused in most instances by varying amounts of time worked during the specific week in which wages were attached rather than by actual differences in income status. The chart shows clearly the wide range in the size of debts and the large number of very small debts. Because of the preponderance of executions for clothing in southern cities among those for which the amount of debt was not reported, the chart understates the concentration of executions in the low-wage brackets and in the $10 to $20 size range for the whole sample. It is probable, on the other hand, that some employers, in spite of instructions to the contrary, reported the amount collected on specific executions as the amount of debt in certain instances. The extent of this error in reporting cannot be measured, but its influence would exaggerate the number of small debts.

Although there appears to be an upward drift in weekly wages as debts increase in size, it is clear that the correlation between wages and amount of debt is slight. Many executions for debts of very small amounts were brought against employees whose weekly wages were relatively high and, conversely, many executions for large debts were brought against persons whose wages were very low.


Amount of Debt (Dollars)
1000
800
600
400
300
200
100
90
80
70
60
50
40
30
20
10
9
8
7
6
5
4
3
2
1
0
10
20
30
40
50
60
70
80
90
100
Weekly Wage (Dollars)

Wages of Debtors

THE distribution by weekly wages of all employees against whom executions were received by reporting industrial establishments during the 3-month period is as follows:

Wage of—	*Number*	*Percent*
Less than $10	176	7
$10–$14.99	887	35
$15–$19.99	795	32
$20–$24.99	345	14
$25–$29.99	177	7
$30–$39.99	86	3
$40 and over	29	1
Not reported	5	(1)
Total	2,500	100

[1] Less than 1 percent.

In interpreting these figures, it is necessary to remember that there were wide differences in typical wage scales among the geographic areas and types of enterprise covered by the sample. Wages which would be extremely low for certain areas and enterprises would be high for others. Attempt has been made, therefore, to supplement the distribution of the whole sample by wage classes by means of a similar distribution for certain urban communities in which a large number of executions were reported. Table 4 gives these data. The distribution by wage classes shown by the table varies materially between cities. The largest number of executions in Birmingham, Memphis, Cincinnati, and Richmond fell in the $10–$14.99 class. For all other cities except Washington, the $15–$19.99 class was the most common.

Table 4.—Distribution, by Wage Groups, of Industrial Employees Involved in Wage Executions in Certain Cities, Feb. 1 to Apr. 30, 1934

Weekly wage	Birmingham		Chicago		Memphis		Richmond		Norfolk	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under $10	109	10	10	2	56	14	0	-------	0	-------
$10–$14.99	466	44	41	8	253	65	86	77	2	3
$15–$19.99	274	26	269	55	45	12	23	21	34	43
$20–$24.99	106	10	120	25	15	4	3	3	28	35
$25–$29.99	76	7	38	8	4	1	0	-------	10	13
$30–$39.99	19	2	4	(1)	16	4	0	-------	5	6
$40 and over	6	(1)	4	(1)	0	-------	0	-------	1	1
Unknown	1	(1)	1	(1)	0	-------	0	-------	0	-------
Total	1,057	100	487	100	389	100	112	100	80	100

[1] Less than 1 percent.

Table 4.—Distribution, by Wage Groups, of Industrial Employees Involved in Wage Executions in Certain Cities, Feb. 1 to Apr. 30, 1934—Continued

Weekly wage	New York City, Westchester County		Kansas City, Kans.		Atlanta		Cincinnati		Washington		Buffalo	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under $10	0	------	0	------	0	------	0	------	0	------	0	------
$10–$14.99	1	2	0	------	13	28	14	47	1	4	0	------
$15–$19.99	17	29	31	57	30	65	10	33	3	11	11	55
$20–$24.99	13	22	16	30	1	2	3	10	6	21	6	30
$25–$29.99	9	15	7	13	0	------	1	3	5	18	3	15
$30–$39.99	15	25	0	------	1	2	0	------	11	39	0	------
$40 and over	4	7	0	------	1	2	0	------	2	7	0	------
Unknown	0	------	0	------	0	------	2	7	0	------	0	------
Total	59	100	54	100	46	100	30	100	28	100	20	100

[1] Less than 1 percent.

In order to compare the wages of those against whom wage executions were brought with wages of all employees, it is necessary again to use homogeneous parts of the sample. Table 5 compares the average wage of all employees with the average wage of those whose wages were attached and shows what proportions of those whose wages were attached received more and less than the average paid to all employees in certain establishments which reported large numbers of executions.

Table 5.—Average Wage of All Employees and of Those Involved in Wage Executions, by Industries, Feb. 1 to Apr. 30, 1934

Industry of employer	Location	Average weekly wage of all employees (Apr. 15, 1934)	Employees whose wages were attached		
			Average wage	Comparison with average wages of all employees	
				Percent receiving less	Percent receiving more
Slaughtering	New York	$30.29	$23.44	89	11
Electric power	Washington	29.49	28.43	55	45
Railroad repairing	Memphis	26.19	21.55	70	30
Structural steel	Detroit	25.60	20.38	82	18
Slaughtering and meat packing	Kansas City, Kans.	24.56	20.16	87	13
Copper and brass	Buffalo	23.47	19.74	100	0
Shipbuilding	Norfolk	22.68	21.91	67	33
Foundry and machine shop	Cleveland	21.84	21.64	61	39
Iron and steel	Chicago	20.98	18.72	73	27
Meat packing	do	19.48	18.63	62	38
Railroad repairing	Minneapolis	18.22	31.14	28	72
Iron and steel	Atlanta	17.81	16.72	87	13
Engineering specialties	Cincinnati	17.68	14.94	90	10
Shipbuilding	Mobile	17.39	19.08	70	30
Iron and steel	Birmingham	16.54	16.36	65	35
Radio manufacturing	Cincinnati	14.63	18.23	31	69
Sawmilling	Memphis	13.84	12.32	74	26
Cotton goods	Atlanta	13.81	14.49	33	67

As already indicated, the chart appears to show an upward drift in the amounts of weekly wages as the amount of debt increases. When

the data used in this chart are tabulated, the direct relationship between wages and amount of debt is more clearly shown. Table 6 gives the average amount of various kinds of debt by wage classes.

Table 6.—Average Amount of Various Kinds of Debt, by Wage Classes, of Industrial Employees Involved in Wage Executions, Feb. 1 to Apr. 30, 1934

Kind of debt	Average amount of debt by wage classes							
	All wage classes	Under $10	$10–$14.99	$15–$19.99	$20–$24.99	$25–$29.99	$30–$39.99	$40 and over
Clothing	$21.58	$14.47	$17.55	$24.66	$22.51	$22.27	$55.79	$17.58
Loans	57.35	40.71	36.91	42.33	65.16	105.96	70.33	63.04
Furniture and household appliances	48.44	34.40	30.29	52.73	55.20	38.93	56.50	42.73
Groceries and meats	20.03	12.25	8.03	19.35	35.89	30.53	144.86	14.77
Board and housing	55.50	33.35	14.14	40.40	63.53	53.67	13.54	15.79
Medical and burial	44.53	25.91	41.64	54.05	40.91	37.51	8.34	88.93
Jewelry	23.60	----	28.46	24.26	18.61	14.62	32.27	----
Automobile purchase and operation	47.64	16.68	13.51	46.03	60.57	27.68	189.00	42.50
Miscellaneous	21.25	17.99	15.56	20.10	17.29	55.87	44.55	36.56
Unidentified	64.88	10.77	24.35	31.91	50.68	39.70	77.65	[1]3,289.00
All debts	33.55	18.77	18.79	30.78	38.90	43.60	79.34	194.02

[1] This figure represents a single execution.

Garnishments and Wage Assignments

APPROXIMATELY two-thirds of the wage executions in the sample were garnishments and one-third were wage assignments.[8] What are the differences in the characteristics of debt for which these two types of wage executions were brought and of the debtors against whom they were brought? Table 7 compares the numbers and average amounts of various kinds of debt represented by garnishments with similar figures for wage assignments. Table 8 compares the wages of those against whom garnishments and wage assignments were brought.

Table 7.—Kind and Average Amount of Debt Represented by Garnishments and by Wage Assignments in Industrial Establishments, Feb. 1 to Apr. 30, 1934

Kind of debt	Garnishments			Wage assignments		
	Number	Percent of total	Average amount reported	Number	Percent of total	Average amount reported
Clothing	501	31	$21.37	638	71	$21.74
Loans	97	6	57.14	89	10	57.55
Furniture and household appliances	89	5	36.09	89	10	67.99
Groceries and meats	169	11	19.84	2	[1]	45.99
Board and housing	103	6	53.02	24	3	66.94
Medical and burial	76	5	44.44	2	[1]	47.00
Jewelry	37	2	23.89	29	3	23.28
Automobile purchase and operation	58	4	46.98	8	[1]	56.27
Miscellaneous	249	16	21.28	7	[1]	8.82
Unidentified	224	14	65.88	9	1	38.38
Total	1,603	100	33.92	897	100	32.76

[1] Less than 1 percent.

[8] For number of garnishments and wage assignments, by cities, see Monthly Labor Review, February 1936 (p. 291).

Table 8.—Weekly Wage Distribution of Industrial Employees Involved in Garnishments and Wage Assignments, Feb. 1 to Apr. 30, 1934

Weekly wages	Garnishments		Wage assignments	
	Number	Percent of total	Number	Percent of total
Under $10	125	8	51	6
$10.00–$14.99	641	40	246	27
$15.00–$19.99	422	26	373	42
$20.00–$24.99	191	12	154	17
$25.00–$29.99	117	7	60	7
$30.00–$39.99	80	5	6	(1)
$40.00 and over	25	2	4	(1)
Unknown	2	(1)	3	(1)
Total	1,603	100	897	100

[1] Less than 1 percent.

Although these two tables accurately describe certain characteristics of all garnishments and wage assignments represented in the sample, their usefulness as a means of comparing garnishments with wage assignments is extremely limited. The average amounts for various classes of debt and the wages of debtors are materially affected by local conditions and only a few of the urban areas covered by our sample report any considerable number of wage assignments. Because of the maldistribution of wage assignments throughout the sample, it is necessary to limit our data to certain areas in order to compare the average size of debts and average wages of debtors for garnishments and wage executions. Table 9 makes this comparison for the 5 cities in which 9 or more wage assignments were reported. It will be noted that the relationship between average amounts of debt and average wages of debtors shown by this table is entirely different from that shown by tables 7 and 8. Both the average amount of debt [9] and the average wages of debtors are consistently lower for wage assignments than for garnishments when the comparison is made within homogeneous groups.

Wage assignments appear to be used most commonly to secure installment contracts for clothing, furniture, and household appliances, jewelry, and loans. The principal characteristics of these contracts are: (1) The original indebtedness is the largest and reduction by periodic payments is anticipated, and (2) the creditor depends almost solely upon pay-roll attachments as a remedy for default. The principal characteristics of the debts for which garnishments were brought are: (1) The debt usually increases following the original

[9] In comparing the average amounts of debt for garnishments and wage assignments, it should be noted that the amounts of debt represented by garnishments include court costs and those for wage assignments do not. These costs are not sufficient, however, to account for the differences in average amounts of debt.

credit extension (i. e., grocery, medical, board, and rent bills) or (2) pay-roll attachments are resorted to only after other more common collection devices have failed.

Table 9.—Average Amount of Debt and of Wages of Industrial Employees Involved in Garnishments and Wage Assignments, in Certain Cities, Feb. 1 to Apr. 30, 1934

City	Garnishments			Wage assignments		
	Number	Average amount	Average wages	Number	Average amount	Average wages
Cincinnati	13	45.38	$18.26	17	28.96	$14.05
Los Angeles	8	43.98	21.45	9	24.42	19.06
Birmingham	717	19.68	16.40	340	14.94	14.33
New York City	26	141.20	26.99	33	39.90	22.89
Chicago	10	137.54	27.51	477	26.30	18.51

Comparison With Other Occupational Groups

How do the characteristics of debts and debtors in reporting industrial establishments compare with those reported by the New York City administration and by the railroad company which supplied data for employees in New York State? Table 10 compares the distribution by wage classes of employees against whom wage executions were brought for the New York City administration, for the reporting railroad company, and for reporting industrial establishments, in New York City and Westchester County, and in all cities. Table 11 shows the distribution of wage executions by kind of debt and gives the average amount of debt for these two large employers and for all the industrial establishments in the sample.

These tables show the influence of the higher wage scales for the two large employers upon the amount of wages received by those against whom wage executions were brought and upon the amount of debt represented by these executions. They indicate, further, that wage executions for debt are not a phenomenon peculiar to low-income groups. Although frequency distributions are not available for comparison of the rates of wage execution among various wage classes for the employees in the sample, such evidence as is available indicates that under certain conditions higher wages lead to more frequent executions for debt. Certainly, at least, the amounts of debt for which garnishments are brought increase as the wages of debtors increase.

Table 10.—Wage Distribution of Industrial Employees Involved in Wage Executions and of Similar Workers in Other Specified Employments, Feb. 1 to Apr. 30, 1934

Weekly wages	New York City administration			Large railroad (employees in New York State)			Industrial establishments					
							New York City and Westchester County			All reporting		
	Number	Simple percent	Cumulative percent	Number	Simple percent	Cumulative percent	Number	Simple percent	Cumulative percent	Number	Simple percent	Cumulative percent
Under $10				1	(1)	(1)				176	7	7
$10 to $14.99	9	(1)	(1)	27	10	10	1	2	2	887	36	43
$15 to $19.99	31	2	2	43	15	25	17	29	31	795	32	75
$20 to $24.99	40	2	4	62	22	47	13	22	53	345	14	89
$25 to $29.99	43	2	6	35	13	60	9	15	68	177	7	96
$30 to $39.99	1,011	51	57	96	34	94	15	25	93	86	3	99
$40 and over	856	43	100	17	6	100	4	7	100	29	1	100
Total	1,990	100	100	281	100	100	59	100	100	2,495	100	100
Not reported	172			91						5		
Grand total	2,162			372			59			2,500		

[1] Less than 1 percent.

Table 11.—Number and Average Amounts of Various Kinds of Debt Represented by Wage Executions Against Railroad and Industrial Employees, Feb. 1 to Apr. 30, 1934

Kind of debt	New York City administration			Large railroad (employees in New York State)			All reporting industrial establishments		
	Executions		Average amount of debt	Executions		Average amount of debt	Executions		Average amount of debt reported
	Number	Percent		Number	Percent		Number	Percent	
Clothing	244	11	$68.26	102	27	$32.23	1,139	46	$21.58
Loans	834	39	142.34	44	12	121.91	186	7	57.33
Furniture and household appliances	253	12	114.02	60	16	89.78	178	7	48.44
Groceries and meats	6	(1)	55.00	1	(1)	[2] 55.00	171	7	20.03
Board and housing	68	3	190.81	1	(1)	[2] 591.00	127	5	55.50
Medical and burial	7	(1)	138.43	4	1	54.25	78	3	44.53
Jewelry	142	7	176.32	60	16	38.93	66	3	23.60
Automobile purchase and operation	29	1	144.10	8	2	110.88	66	3	47.64
Miscellaneous	209	10	225.71	38	10	65.24	256	10	21.25
Unidentified	370	17	329.05	54	15	552.24	233	9	64.88
All debts	2,162	100	174.20	372	100	135.55	2,500	100	33.55

[1] Less than 1 percent.
[2] 1 execution only.

An interesting characteristic of the executions against New York City employees is the predominance of executions for loans. Among the establishments in the samples in which large numbers of executions were brought, this is the single employment group in which clothing was supplanted as the most frequent cause of wage executions. This is probably due in part to very great development in New York City

of industrial banks and lending institutions doing a similar business[10] and in part to the fact that wage assignments, the customary security of installment clothing houses in New York City, are not useful against city employees. The distribution of executions against the railroad's employees by kind of debt, however, more nearly resembled the pattern for the industrial establishments.

Table 12 compares the average amounts of various kinds of debt represented by garnishments and wage assignments brought against the employees of the railroad company.[11] Apparently the differences in characteristics of garnishments and wage assignments that were revealed by table 9 for certain cities hold also for railroad employees throughout New York State.

Table 12.—Average Amounts of Debts for Specified Purposes, of Railroad Employees Involved in Garnishments and in Wage Assignments, Feb. 1 to Apr. 30, 1934

Kind of debt	Garnishments		Wage assignments	
	Number	Average amount	Number	Average amount
Clothing	16	$47.82	86	$29.12
Furniture	26	96.58	34	84.59
Jewelry	2	61.00	58	38.17
Loans	43	123.23	1	[1] 65.00
All others	89	374.46	17	42.53
Total	176	237.69	196	42.84

[1] 1 execution only.

[10] I. e., personal-loan departments of banks and credit unions.

[11] Judicial restrictions upon the use of wage assignments against public employees prevent these instruments from being used against New York City employees.

Methods of Financing Workmen's Compensation Administrations and Funds[1]

By Marshall Dawson, of the United States Bureau of Labor Statistics

A WORKMEN'S compensation commissioner said recently, "If the workmen's compensation commissions are to give satisfactory service, we must have more money." This remark raises two questions: How much money does a workmen's compensation commission need? What is the best way to get the support that is necessary? Especially during the depression, many compensation commissions have suffered severely from insufficient provision for doing the work expected of them. The distinction between "cheap" administration and economical administration is often overlooked. As a test of the merit of an administration, it is useless to ask how little it costs unless one is shown what service is rendered.

It is easy to understand how a layman may be misled at this point. A letter published by the California Standard[2] shows how simple the matter seems to a workman.

> In Oregon the State plan there allows only 10 percent for overhead. Injured workmen and their dependents get 90 percent in Oregon, while California pays 52 percent or less.

An analysis of this statement, in the light of all the facts, shows a fallacy in the reasoning. The statement is quoted here not as a basis for comparisons between the two States mentioned, but as an interesting specimen of confused thinking upon measurements of service. What the workman receives, and what the administration costs, are two different things. What he receives is provided in the workmen's compensation act of his State. The scale of benefits provided by such acts is seldom the same in any two States. Because of such erratic variations, strange as it may seem, in one State the workman may get 90 percent of the dollar the employer pays for insurance and still receive less than is paid the workman in an adjoining State where the injured man is said to receive only "52 percent or less" of the amount paid as insurance premium. The benefits actually paid to the workman depend upon the standard of liberality set by the State workmen's compensation law and the interpretation of the law. At present, in the two States mentioned in the newspaper

[1] This is the third of a series of articles on workmen's compensation administration, the first of which appeared in the Monthly Labor Review, Jan. 1936 (p. 1).

[2] California Standard, Eureka, Calif., Apr. 26, 1935.

article, it happens that while in one State the administrative cost is low, in the other State the liberality of the act is high, so that the workmen who "get 90 percent" in one State actually receive less than do the workmen in the other State which "pays 52 percent or less"[3] of the dollar expended by employers for workmen's compensation insurance.

The patterns of workmen's compensation law and insurance are so varied that they have to be examined carefully before attempting to make comparisons. Even the correction, set forth above, of the newspaper's comparison may also be misleading, without further explanation. It must not be mistaken for an assertion that administrative cost has nothing to do with what the workman receives. Low administrative cost, other factors being equal, makes possible increased benefits by easing the competitive burden upon employers and making them more disposed to join with labor in favoring a generous workmen's compensation act. But whenever low administrative cost is considered, as a desirable goal for labor, the factor of "service" must be scientifically scrutinized. If this is not done, the worker may lose instead of gain by the cheapening of the administration of the workmen's compensation act.

Cost in Relation to Service

LABOR'S primary needs in this field are generous benefits and efficient administration. While it is important to know whether the "overhead" in the administration of the compensation law and insurance is 10 percent, or 50 percent, of the insurance premium, it is much more important for the worker to know what he is getting for the 10 percent or the 50 percent overhead expenditure. The safe thing to do, at this point, is to start by asking the question: "What services should be rendered by the workmen's compensation administration and the insurance carrier?" Emphasis should be put, first, on the actual rendering of essential service, and second, on reasonable cost for that service. Comparisons of administrative expense should be checked against a schedule of services rendered, for instance, in claims adjustment, insurance supervision or underwriting, investigating solvency of carriers, administration of "second injury" fund, accident prevention, and rehabilitation. To afford a scientific basis of comparison, definite weightings would have to be given for specific items of service. Otherwise, in a scrutiny of relative administrative cost, one may be comparing an administration that renders services "x, y, and z" with an administration that renders only services "x and

[3] The comparison of actual benefits provided by the acts of the 2 States mentioned, made by the National Council on Compensation Insurance, as of January 1935, shows that the benefit liberality of Oregon is 0.768 as compared with New York (1.000), while the liberality rating of California is 0.802. Such comparisons are approximate and do not take into account local variations in the liberality of the administration, as distinguished from the liberality of the provisions of the act itself.

y." Such a comparison, instead of penalizing the deficient administration, might exhibit it favorably as the more economical of the two. This caution is needed in regard to the method of approach to the subject. But at the same time that attention is called to the danger of assuming that low-cost administration is economical, it must also be said that a high administrative cost is not necessarily proof of adequate service. In each case the administrative values received by the public which is served can be determined only by checking the items of expense loading against the kind and amount of service actually rendered.

In 1919–20 the Bureau of Labor Statistics made a study of workmen's compensation insurance systems. One of the points upon which information was sought was the "relative cost" of the various types of insurance carriers. "The question of costs included both the cost of insurance and the cost of administration." The results of that study, which covered 20 States and 2 Canadian Provinces, were given in a bulletin published in April 1922.[4] That report compared the administrative cost of exclusive State funds, competitive State funds, and private insurance. A striking contrast, drawn between the "expense ratios" [5] of State insurance and stock-company insurance, focussed attention and debate upon the possibility of eliminating waste or private profit in this branch of social insurance. The most controversial factor in this comparison was "service." In order to make a dollar-for-dollar comparison in administrative cost, it was considered necessary to assume "that each type of insurance has furnished the same kind of service." Upon that assumption, certain averages were arrived at. "Using one figure only, the average expense ratios are as follows: Stock companies, 38 percent; mutual companies, 20 percent; competitive State funds, 10.6 percent; and exclusive State funds, 4 percent." [6]

That comparison of administrative cost, made upon the assumption that the same type of service had been rendered by the carriers compared, has sometimes been detached from its hypothetical basis and mistaken for a statement of what the administrative cost of a commission and/or [7] State fund should be. As attention was drawn

[4] U. S. Bureau of Labor Statistics Bul. No. 301: Comparison of Workmen's Compensation Insurance and Administration. Washington, 1922.

[5] The "overhead" cost of insurance and administration, as distinguished from the "pure premium" or charge for the cost of compensation and medical aid received by injured workmen.

[6] U. S. Bureau of Labor Statistics Bul. No. 301: Comparison of Workmen's Compensation Insurance and Administration. Washington, 1922, p. 10.

[7] In some States and in some Provinces of Canada, the administrative functions of the commission and fund are merged; in other cases, they are distinct. This difference of pattern causes one of the difficulties in comparing the cost of workmen's compensation administration and insurance. One cannot make a clean-cut comparison of cost as between the operations of a State fund and private insurance. It is sometimes as difficult to compare the cost of operation of two State funds as it is to compare the costs of State and private insurance, because all funds do not render the same kind or amount of service. Thus, if comparisons are made on the basis of administrative cost alone, without knowing what service is rendered, it is like comparing the price tags on several packages without knowing exactly what is in the packages. To make an intelligent choice, both cost and content of the package must be known.

to the very low administrative cost of State funds, especially exclusive State funds, some legislatures came to look upon reduced administrative cost as the most important objective in workmen's compensation administration. On the other hand, well-informed students of the subject understand that mere cheapness of administration is a delusive goal which has often ended in a quagmire of waste, nonservice, and very costly inefficiency. Because there are controversial phases of any discussion of administrative cost involving comparison between types of insurance carriers, it must be said again, at this point, that high cost of insurance is not, in itself, proof of satisfactory service, any more than low cost of insurance is, in itself, proof of economical administration.[8]

Effect of the Depression in Impairing Workmen's Compensation Service

In 1919 something was to be gained, especially as a starting-point for further study, by comparing the administrative cost of certain types of administration and insurance upon the assumption "that each type of insurance has furnished the same kind of service." But the impact of the historic period 1929–34 makes it necessary to place the emphasis elsewhere in the present study.

In the year 1935 the outstanding feature of workmen's compensation administration was the impairment of service by deficient support of the administrative agencies. There are other causes of impaired service, but in 23 States visited only one State was found where the support was considered adequate by those responsible for the administration. And even that State had severely cut one essential phase of workmen's compensation service, resulting in a level of performance below the attainment of former years.[9]

This impairment of service in workmen's compensation administration and insurance by deficient support is not a new condition, except in the degree of impairment resulting from the difficulties of the States in financing expenditures during the past five years. In Bulletin No. 301 it was said (p. 5):

> Probably the greatest handicap suffered by State funds and industrial commissions is inadequate appropriations and salaries. An industrial commission cannot perform its functions properly nor furnish adequate service if it does not

[8] Some of the factors involved in the wide variation in the "overhead" cost of workmen's compensation insurance are: Acquisition cost, duplication of service, excessive competition, small volume of business in proportion to fixed overhead cost, differences in the provision for inspection service, auditing of pay rolls, and adjustment or claim service, organization and coordination of service, regional geographical variations with thinly scattered risks in some areas, etc. Especially during the depression, excessive overhead, where it existed, was due to such causes rather than to the loading of cost with "profit", since it is claimed that most of the stock and mutual companies lost money on workmen's compensation insurance during recent years.

[9] In the Bureau's survey of workmen's compensation administration and insurance, some of the tests of administrative cost and adequacy are objective, while others are subjective and involve expressions of opinion from qualified experts actually in charge of the operations studied. For example, the officer in charge of a department may be asked, at the close of the factual study, if in his opinion his personnel is adequate, measured by an ideal standard of service. Replies to such questions are confidential; hence when such an opinion is quoted, the name of the State is not disclosed.

have sufficient appropriations to carry on its work and if the salaries provided are so low that high-grade employees cannot be retained.

This deficient support, which in most States had been bad enough but endurable prior to 1929, was further reduced during the depression. In consequence, many State administrations were slowed down and weakened. Some branches of service were lowered from a professional to a clerical status, or were altogether wrecked. Indeed, it is greatly to the credit of the workmen's compensation commissions that, in the face of such difficulties, they were able to carry on their administration well enough to avoid a revolt of the labor movement against the commission administration of workmen's compensation.

As long as it seemed necessary, the workmen's compensation commissions accepted salary cuts and curtailment of personnel. The year 1935, however, was marked by a trend toward the restoration of essential services. Some commissions, surveying the impairment of service in their States, are now giving thought to the renovation and perfecting of workmen's compensation administration and are seeking methods of financing which will not be subject to destructive fluctuations such as those experienced in recent years.

The outstanding question is, What service shall be rendered and how is it to be financed? From this point of view, it is apparent that the depression years 1929–1934 have made a distinct contribution to the development of workmen's compensation administration in the United States, by so exaggerating certain existing defects in the law and administration as to compel attention to the necessary remedies.

Chief among the constructive contributions made by the depression to the development of workmen's compensation administration are the investigations or audits [10] made in certain States by outside actuaries of accredited ability. The most striking feature of such audits was the uncovering of heavy losses, traceable to deficient administration, which outweighed the cost of the administration itself. Such evidence that an adequate administration is more economical than a deficient, poorly supported administration, gives impetus to the movement to place the administrative cost of workmen's compensation service upon an efficiency basis.[11]

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[10] Since the administrative functions in most exclusive fund States are a unit, an audit of the fund would usually result in recommendations relating to the administration as a whole as well as to the conduct of the specific insurance functions.

[11] As samples of actuarial reports and reports of investigating committees made in States at the instance of governors, legislatures, or voluntary groups, see Actuarial Survey, Ohio State Insurance Fund, Report to Governor's Investigating Committee, Workmen's Compensation Law, Nov. 26, 1934, New York, Woodward & Fondiller, Inc.; and Ohio Government Survey Committee, Booklet No. R7; The Industrial Commission, Columbus. In other States there have been important actuarial reports made directly to workmen's compensation commissions. Some of these reports are held to be confidential, but most of them reach the same conclusions. As contributions to the literature of workmen's compensation administration and insurance, some of the actuarial reports are especially valuable because they are the work of specialists in this type of insurance. While some of the reports of investigations made by others than specialists in workmen's compensation administration contain excellent material, such reports are sometimes vitiated by the lack of expert knowledge, and may contain suggestions which if acted upon would make a bad situation worse.

In a recent report the statement is made: "It is distinctly apparent that the major difficulty [of compensation administration] has been inadequate legislative appropriations for proper functioning." As a typical instance of losses due to undermanned departments, that report points out that "a test study in Cuyahoga County indicates that $1,500,000 annually would accrue to the fund if pay-roll audits were kept up to date." This one item of loss is greater than the entire legislative appropriation for the support of the commission and fund in that State. "The appropriation measure carried $933,593 for the industrial commission for 1935", of which amount items totaling $58,700 were vetoed.[12] This report is the more significant as a recognition of the imperative need for adequate financing of workmen's compensation administration, because it recommended increased appropriations for that service at the same time that the agency which made the report was urging economies in certain other State departments.

In view of the fact that many branches of public service have been cut to the bone, in the name of economy, workmen's compensation commissions have been reluctant to demand preferential treatment in the matter of appropriations. But the function of insurance is to act as a stabilizer. Such a function is especially needed in times of industrial fluctuation. To cut an insurance administration drastically at such a time hampers its power to render the very service for which it was created. If the depression experience in relation to the financing of workmen's compensation administration has taught any one lesson, that lesson is the necessity for permitting commissions and funds to be self-supporting, for at times the willingness or ability of State legislatures to support the service by general appropriations has failed.

Methods of Financing Workmen's Compensation

THE crisis in workmen's compensation administration, precipitated in some States during the depression by the dwindling of appropriations, has emphasized the main division in methods of financing workmen's compensation commissions and funds—the difference between support by legislative appropriations and self-support either through an assessment on the insurance or by the direct use of part of the insurance income for administrative purposes. The simplest way to explain the different effects upon workmen's compensation administration of the two methods of financing is to say that under one method the administration must give what service it can out of a fixed sum of money allowed it, while under the other method the commission ascertains what service it should render and makes up its budget accordingly. In the first case the criterion is what the commission can

[12] Ohio Government Survey Committee. Workmen's Compensation. Columbus, 1935, pp. 8, 17.

get; in the second case the criterion is what it should do. In the first case the commission must "muddle along" as best it can; in the second case the service can be put upon an efficiency basis.

The first method—support by legislative appropriations—almost invariably produces "deficient" administration. It is most unjust to the workmen's compensation commissions in many States to say that their administration is "inefficient" when they are doing all that is possible with the means at their disposal. The correct characterization of the type of administration usually found where the commission and/or fund is supported by legislative appropriation is "deficient" administration.

It is not the purpose of the present study to draw attention to the condition of administration in certain regions by naming the States in which different types of financing are found. To do so would distract attention from an impersonal consideration of the main patterns of financing observed in the course of the Bureau of Labor Statistics' survey. But because so many expert and costly studies have been made of the Ohio administration, there is some justification for citing, by name, the Ohio experience.

It has been said that the support of a commission and/or fund by legislative appropriation almost invariably results in deficient service. The investigators of the Ohio Government Survey Ccommittee examined the service rendered by the divisions of the workmen's compensation administration and found it deficient. A correct measure of that deficiency would show the financial margin between deficient support and adequate support of each phase of the service and of the service as a whole. For such measurements, the ground had been prepared by thorough actuarial studies previously made. In the light of such knowledge, the increased appropriation which would make possible an adequate administration was recommended. The investigation showed that the Ohio commission and fund were rendering the State a service of such great value as to warrant increased expenditures upon administrative operations.

The method of checking the work of a compensation administration, division by division, against a standard of service, is an excellent way of arriving at a correct figure for the budget. The Ohio Government Survey Committee, by this method, sketched a long-range plan and reached the following conclusion:

> To carry out the program detailed in these recommendations, including the long-range view, these appropriations will be required:
>
> | | |
> |---|---|
> | 1935 | $1,200,000 |
> | 1936 | 1,442,800 |
> | 1937 | 1,442,800 |
> | 1938 | 1,142,800 |

These figures represented a large increase over previous appropriations.

It is most unusual to find such an example of long-range planning of administrative allowances or expenditures. But the entire past experience in Ohio, and in most State administrations dependent upon legislative support, proves that it is one thing to make up a budget, and quite a different thing to obtain an appropriation. The long-range planning of administrative expenditure emphasizes the necessity for a different method of financing, since the legislature which makes the appropriation for 1936 has no power over the legislature which will meet in 1938.

There is but one way of assuring progress from deficient to adequate administration, i. e., by changing the method of financing from legislative support to self-support. Such a change at one stroke removes a tax item from the general appropriation list, makes the commission financially autonomous, and helps to remove workmen's compensation administration from the recurring political struggle for the means of survival.

The accumulated experience upon this feature of workmen's compensation administration prompted the formulation of a new "plank" in the platform of standards recommended by the Second National Conference on Labor Legislation, held at Asheville, N. C., October 1935:

> *Administration.* * * * Cost of administration to be defrayed, not by legislative appropriation, but by an assessment on insurance companies and self-insurers. Administrative cost of State funds to be taken directly out of insurance premiums or income.

Because of the desire to simplify, it would be gratifying if one could dispense with further elaboration of the principle that the standard method of financing workmen's compensation commissions and/or funds is now self-support either by assessment or by the use of insurance income for administrative purposes. Unfortunately, workmen's compensation acts and administrative machinery in the States cannot be divided into two main groups or patterns, for they are complicated by the variations in the State acts and practice and sometimes by constitutional obstacles.[13] Mixed patterns are often found. Occasionally, also, the manner in which a plan is carried out nullifies the value of a plan which, on paper, resembles a "standard." The possibility of continuous adequate support of the workmen's compensation administration and/or fund is determined, not by the letter of the

[13] The effect of constitutional provisions upon workmen's compensation law and administration is a study in itself, upon which a volume could be written. The main difference in constitutional patterns is that between the relatively brief and general form of constitution and the constitution which undertakes to cover every phase of State experience and which is in effect a code of massive proportions. Since social-security legislation represents a relatively new and unforeseen stage of American experience, some of the older State constitutions, especially those which undertake to regulate legislation in detail, present difficulties which are from time to time met by amendments.

law alone, but also by the local practice in regard to the resources and expenditures of State agencies.[14]

Adjustment to Changing Conditions

THE present situation of workmen's compensation administration in the United States as a whole cannot be understood unless one bears in mind the change, which began about 25 years ago, in the scope of State functions. In the nineteenth century State governmental activity was almost exclusively regulatory. At the beginning of the second decade of the twentieth century, many of the States were extending their functions to include certain "service" activities. But the existing constitutions and laws had been framed, perhaps in the eighteenth century, for use in a government restricting itself to regulatory action. Workmen's compensation administration is mainly a "service" function. In some States the necessity for making constitutional and statutory changes was recognized as soon as the demand arose for the enactment of workmen's compensation laws. The process of adaptation to a new function was experimental, and some of the new provisions were necessarily imperfect. Changes made at one point sometimes caused unforeseen difficulties at other points. In studying the present condition of workmen's compensation law and administration in the United States, it is of the utmost importance to understand that what is now taking place in many jurisdictions is the attempted adjustment of the imperfect adaptation of the old body of law and practice to new social and industrial conditions.

This adaptation has taken place more rapidly in some States than in others, but it has already gone far enough to enable all the States to benefit by the experience of those jurisdictions which have made the most successful adaptation of their law and administrative machinery to the exigencies of such a service agency as workmen's compensation administration. Most of the present difficulties of workmen's compensation administration arise out of a transition period of development. The chief imperfections in the adaptation of old legal patterns or in the framing of new patterns may now be clearly seen and expertly remedied.

Some of the earlier laws setting up workmen's compensation commissions and/or funds were marked by the fear of delegating ample authority to those responsible for the conduct of compensation administration and insurance. The habit of restricting the

[14] An interesting illustration of such a local practice, found in some States during the depression, is the "self-denying" clause requiring all State agencies to place themselves upon a parity or equal footing, in a time of shortage of State revenues, regardless of their separate departmental resources for support (if any). Under such a clause, employees in well-financed departments or agencies were expected to share the vicissitudes of the employees in departments suffering from a deficiency of support. Where this "self-denying clause" was found, the professional employees of workmen's compensation administration were sometimes compelled to accept nominal salaries, while clerical salaries would be reduced to the subsistence level, and "service" was cut to a minimum.

delegation of authority to regulatory agencies was applied to the mechanism of the new service agency. Experience soon showed that the new mechanism, when it was so tied up with detailed mandates and restrictions, would not work satisfactorily.[15]

Necessity for Self-Direction Plus Self-Support

THE method of financing workmen's compensation commissions and/or funds, in any jurisdiction, is the specific method prescribed by the law, as affected by the practice in that jurisdiction either to subject the agency to detailed control or to allow it ample scope for self-direction in its operations. In some States, the compensation act may seem to give a commission powers of self-direction in budget making, which in fact the commission may not exercise. Partial attempts to put workmen's compensation administration upon a better financial basis have shown that, without an elastic provision for budget making, a change in the source of the support of a commission may not remedy the difficulties of the situation. The commission's needs for the power of self-direction and for self-support go together; one without the other does not help much.

The attempt to ease the administrative difficulties of a workmen's compensation administration and/or fund is nullified when the act provides for self-support by assessment or by use of insurance funds for administrative expense, but compels the commission nevertheless to have its budget approved or an appropriation made by the legislature. This is especially true where the budget to be approved by the legislature is a "line item", i. e., a detailed analysis of proposed expenditures. In such a case, a workmen's compensation commission, even though its expenditures are reimbursed by an assessment upon insurance carriers, may be unable to hire an additional stenographer or increase the salary of an employee until the next session of the legislature convenes and a new budget is approved and a covering appropriation is made.[16] Some States have avoided such difficulties by

[15] For example, one of the first acts providing for a State fund contained detailed instructions upon rate making and the handling of insurance revenues. A business cycle, with the attendant acute fluctuation in receipts, was not foreseen by the lawmakers. The need for elasticity in emergencies was overlooked. In consequence, many of the classifications into which the fund was rigidly divided became insolvent during the depression, yet there was no method by which the fund as a whole could lend to its own subdivisions without overstepping the law. Such detailed regulation put the commission in a most embarrassing situation. It was compelled to throw a maximum burden of insurance cost upon employers when these were least able to bear it. Moreover, to escape the risk of complete insolvency, it was constrained to guard its compensation awards so closely as to antagonize labor. The hostility of both employers and workmen was incurred, and the existence of the fund itself was threatened by bills introduced in the legislature.

In sharp contrast with this experience is that of a certain fund, unhampered by detailed restrictions, which was able to take the unusual step of reducing its insurance rates, at the depth of the depression, without curtailing its awards, and thus ease an emergency condition without impairing its solvency. The names of these two funds are withheld because the aim of the present study is to compare methods rather than point out conditions in different jurisdictions.

[16] Abundant examples of the crippling of the functions of workmen's compensation administration by "line-item" budgets may be found. For instance, one commission had discontinued its former practice of notifying injured workmen of their rights because the appropriation had not allowed the office sufficient postage stamps.

adopting a policy which frankly recognizes a difference between service agencies and regulatory agencies, allowing the service agency a maximum of self-direction. Some of the competitive State funds have benefited by such a change of policy in regard to their operations and budget making. The viewpoint is gaining acceptance that if the State goes into the insurance business, the efficient operation of the business necessitates the delegation of responsibility and authority to a properly safeguarded administration.

What is involved in the change of legislative attitude toward the powers of workmen's compensation commissions and/or funds is not an abandonment of safeguards upon the administration, but a choice between old methods of safeguarding and new methods adapted to present conditions. For example, prior to the depression of 1929 the auditing of State funds in some jurisdictions was intermittent, weak, and inexpert, while at the same time there was strict legislative control of the budget. The present tendency is to place more reliance on competent audits, while relaxing legislative control of the budget. In short, the trend of development stresses the importance of nonpolitical rather than political checks upon the operations of the commission, and of "locking the door" before "the horse is stolen" instead of afterward. Another example of the newer type of checks upon administration is the provision of an advisory committee for the commission and/or fund. The exigencies of workmen's compensation administration and of the insurance business arise from day to day, and cannot satisfactorily await the convening of a legislature 1 or 2 years hence. The checks necessary for the efficient conduct of such operations are those which are available in the course of the daily business, rather than checks which are applied at intervals of 1 or 2 years with no direct contact during the intermission.

In the case of State funds which have been set up alongside the existing system of private insurance, without displacing stock-company and mutual insurance but on a competitive basis with them, autonomy in budget making has often been allowed. The theory upon which this has been done is that the "competition" of the State fund with private insurance carriers will of itself furnish a check upon its administrative expenditures, which may take the place of a control over the budget by the legislature. But in some cases this autonomy may be subject to an arbitrary maximum limit of expenditure. A typical device is a provision in the act that the fund may not expend, for administrative purposes, more than 10 percent of premium income. This check upon the budget may be further complicated by a specific provision for calculating the percentage; as, for instance, 10 percent of the premium income for the preceding fiscal year.

Such detailed provisions have caused great difficulties. Thus, the budget of a State fund for the year 1934 had to be calculated

upon a percentage of the premium income for 1933. In 1933, the premium income dropped to a very low level. In 1934, the increase of employment naturally expanded the business of the fund, and, in addition, the fund had to take on a heavy load of insurance covering emergency relief workers. In consequence, the administrative expense of the fund leaped beyond the legal maximum. The administrators faced the alternative of refusing to protect the workers by insurance or of violating the law by spending more than the maximum allowed. The commission chose to protect the workers and take the personal risk incident to violating the legal restriction upon administrative expense.

Specific limitations of administrative expense written into workmen's compensation acts have failed to take into account two things: (1) Business cycles with the attendant acute fluctuation in the volume of insurance coverage and consequent fluctuation in receipts; and (2) the scope of service which, according to advancing standards, should be rendered by commissions and funds. Such arbitrary limitations upon budgets have compelled sudden reductions in the working personnel of commissions and funds, especially during the depression. As an illustration of the difficulties caused by such detailed limitations in acts, one may cite the experience in a State where the commission was compelled to drop from its working force all of the referees.[17] Fortunately, after this commission had operated for a period of 6 months without the services of referees for adjudicating claims, a change in receipts or in legislative authorization made possible the reemployment of these indispensable agents in workmen's compensation administration.

Among the mixed patterns of financial support is the method of self-support for a competitive fund, coexisting with support of the workmen's compensation commission by legislative appropriation. This may result in a fluctuating provision for the commission administration alongside a relatively stable administration of the fund.

There are historic examples of the effect of this dual method. In one State, the early popular enthusiasm for workmen's compensation administration, following the enactment of the law, assured adequate appropriations. An unusually expert administration was built up. Later, at one stroke, the appropriation was cut in two. Some features of the compensation administration had to be discontinued, with the wholesale dismissal of employees. More than 10 years later the uncertainty of appropriations to pay the salaries of employees led the personnel of the workmen's compensation administration to adopt the plan of paying into a common pool a percentage of their salaries, so that if the appropriation failed, some of the employees, instead of

[17] Officers who conduct hearings upon claims for compensation. To do such work intelligently, a considerable period of training is needed.

being forced out, could get their support from the common pool. The fluctuation of legislative appropriations has not only seriously hampered the work of the commission at times, but has made uncertain the tenure of employment even for employees with a civil-service status.

One of the chief defects in the legislative-appropriation method is the lack of continuity of gubernatorial policy in the States. At the present stage of development of our administrative technique, there may be a reversal of fiscal policy with each change in occupancy of the governor's chair. Such variations of policy have had at times disastrous effects upon the relatively fixed needs of the workmen's compensation system, and at all times have introduced an element of insecurity not conducive to the development of personnel efficiency.[18]

The chief methods of supporting the workmen's compensation administration and funds may be summarized as follows:

Legislative appropriation from general funds, without reimbursement from an assessment upon the insurance or in any other way. (Such a provision is, in effect, a subsidy to employers, relieving them of a customary part of the expense of workmen's compensation coverage.)

Legislative appropriation from general funds for the support of the commission, the expenditure to be repaid by an assessment upon insurance carriers and self-insurers. (States have been found where self-insurers are overlooked in the taxing provision and consequently contribute nothing to the administration.)

Support of the commission by assessment upon insurance, with the amount of the budget, or expenditure, fixed by legislative determination, or limited by the act.

Self-support subject to approval of the budget by the Governor, budget committee, legislature, or other control agency.

The Ontario Method

An example of almost complete autonomy, in regard to administrative expense, is found in the Workmen's Compensation Act of Ontario (sec. 95).

The board shall in every year assess and levy upon the employers in each of the classes such percentage of pay roll * * * as it shall deem sufficient to pay the compensation during the current year in respect of injuries to workmen * * * and to provide and pay the expenses of the board in the administration.

No budget is made up for submission to any outside authority. The expenses of administration are taken out of the insurance receipts. The act authorizes the board to appoint the necessary officers and employees, and "subject to the approval of the Lieutenant-Governor in Council", fix their salaries (sec. 66). As a matter of policy the board also submits to the Lieutenant-Governor in Council, for approval, any appreciable new expenditures.

[18] Employees in some States have come to accept such a condition of insecurity as a necessary aspect of their employment. An employee in one State, which was visited during an election, said: "We never resign or are discharged. We all go out automatically after each election."

The Ontario practice shows how experience has led to the selective use of only one out of two available means of support. The Ontario act has since its passage in 1914 permitted a dual method of support, i. e., self-support, supplemented by aid from the consolidated revenue fund (sec. 77):

> To assist in defraying the expenses incurred in the administration * * * there shall be paid to the Board out of the consolidated revenue fund such annual sum not exceeding $100,000 as the Lieutenant-Governor in Council may direct.

This provision for supplementary support is now inoperative. In the main it was discontinued in 1923, although the salaries of the board members were so provided for until 1928. The Ontario administration chose complete self-support rather than self-support plus aid from the Province. This is of interest because in some States the question is asked, when the standard of self-support is considered, whether the commissioners or board should not be excepted from the rule and continue to receive their salaries from the general appropriation.

Experience points to complete administrative self-support as essential to efficiency in workmen's compensation administration and the management of funds. This need has been crystallized into a specific recommendation by the Second National Conference on Labor Legislation. The general adoption of the correct legal and administrative devices needed for freeing compensation administration from dependence upon legislative support will put an end to a condition which, as long ago as 1922, was recognized as "probably the greatest handicap suffered by State funds and industrial commissions."

SOCIAL SECURITY

Old-Age Pensions and Annuities in Canada, 1934–35[1]

MORE than 100,000 needy aged were receiving public pensions in Canada at the end of March 1935, and during the year ending on that date over $85,000,000 had been disbursed in allowances. The cost of these pensions is borne three-fourths by the Dominion Government and one-fourth by the Provinces. No additional Provinces adopted the pension system during 1934–35. In the eight jurisdictions in which the act was in force the average monthly allowance ranged from $10.44 to $18.98.

The following table shows, by Provinces, the status of the pension system on March 31, 1935. For purposes of comparison totals for 1933–34[2] are also given.

Table 1.—Development of Old-Age Pensions in Canada, Year Ending Mar. 31, 1935

Province	Date act became effective	Number of pensioners, Mar. 31, 1935	Amount paid in pensions, 1934–35	Average pension	Percent pensioners form of—		Percent all persons over 70 form of total population[1]	Total paid in pensions since adoption of act
					Total population[1]	Population over 70 years of age		
Alberta	Aug. 1, 1929	7,151	$1,428,087	$17.34	0.92	43.04	2.16	$5,632,834
British Columbia	Sept. 1, 1927	9,076	1,983,093	18.89	1.25	37.18	3.37	9,990,852
Manitoba	Sept. 1, 1928	10,229	2,213,159	18.20	1.40	49.75	2.81	10,614,257
Nova Scotia	Mar. 1, 1934	12,241	1,973,199	14.39	2.31	46.32	5.02	2,065,560
Ontario	Nov. 1, 1929	50,771	10,287,086	17.79	1.42	33.00	4.31	47,293,675
Prince Edward Island	July 1, 1933	1,439	171,808	10.44	1.62	25.34	6.38	270,641
Saskatchewan	May 1, 1928	10,137	1,940,906	16.23	1.05	49.85	2.10	9,694,058
Northwest territories	Jan. 25, 1928	7	1,719	18.98	.07	7.86	.89	8,258
Total: 1934–35		101,051	19,999,056					85,570,135
1933–34		86,873	16,566,117					65,571,079

[1] Percentages based on officially estimated population, 1934.

In Canada, the adoption of the old-age pension system is voluntary with the individual Provinces. Upon adoption, pensions become payable to British subjects 70 years of age or over who have resided in Canada for 20 years and in the Province for 5 years immediately preceding the date of application, and whose yearly income does not

[1] Data are from Canadian Department of Labor Report for Year Ending Mar. 31, 1935, Ottawa, 1935.

[2] For details of 1933–34 operations see Monthly Labor Review, October 1934 (p. 882).

exceed $365 per year. The maximum pension is $240 per year, subject to a reduction by the amount by which the pensioner's income exceeds $125 per year. An interesting and unusual provision is that providing proportional pensions in cases of persons who have spent part of the 20 years preceding application in Provinces which have not yet adopted the act.

Government Annuities

CANADA has, since 1908, had a system whereby annuities may be purchased from the Government. This system was established to encourage habits of thrift and voluntary provision for old age.

The minimum annuity obtainable on the life of one person or on the lives of two persons jointly is $10 a year and the maximum $1,200 a year. The annuity may be of either the deferred or immediate type. Deferred annuities are for younger persons desiring to provide for their later years, and may be purchased either by lump sum or periodic payments.

Since the inception of the system, 22,736 annuity contracts have been issued. Of these, 2,510 were canceled after issuance, leaving 20,226 in force on March 31, 1935. Premiums paid on these contracts to the Government annuities branch total $56,661,889. Table 2 shows the development of the annuity system since 1908.

Table 2.—Development of Canadian System of Government Annuities 1908–09 to 1934–35

Year ending Mar. 31—	Number of contracts issued	Amount of premiums	Year ending Mar. 31—	Number of contracts issued	Amount of premiums
1909	66	$50,391	1924	409	$1,458,819
1910	566	434,491	1925	486	1,606,822
1911	1,069	393,441	1926	668	1,938,921
1912	1,032	441,601	1927	503	1,894,885
1913	373	417,136	1928	1,223	3,843,088
1914	318	390,887	1929	1,328	4,272,419
1915	264	314,765	1930	1,257	3,156,475
1916	325	441,696	1931	1,772	3,612,234
1917	285	432,272	1932	1,726	4,194,384
1918	187	332,792	1933	1,375	3,547,345
1919	147	322,154	1934	2,412	7,071,439
1920	204	408,719	1935	3,930	13,376,400
1921	195	531,800			
1922	277	748,160	Total	[1] 22,736	56,661,889
1923	339	1,028,353			

[1] Includes 2,510 contracts issued but later canceled.

Old-Age Pensions in Sweden, 1934

THE Swedish system of old-age and invalidity insurance covered approximately 3,857,500 persons between the ages of 15 and 66 years in 1934, or 93.3 percent of the population in that age group. This insurance is compulsory for practically all Swedish citizens be-

tween those ages. Voluntary contributions may also be made for the purchase of benefits additional to those provided for under the compulsory system.

Each person subject to the insurance is required to make an annual contribution of 3 kronor.[1] Every person whose yearly income amounts to 600 kronor or more must make a supplementary contribution varying, according to his income, from 2 to 30 kronor per year. For certain supplementary benefits, the State and communes contribute, the former paying three-fourths of the cost and the latter one-fourth.

During 1934 contributions amounting to 25,651,900 kronor were received under the compulsory system, of which 23,916,300 kronor were paid by the insured and 1,735,600 kronor by the communes. In addition premiums amounting to 7,162,154 kronor were received for the purchase of voluntary insurance by 8,949 insured.[2]

During the year 85,781 claims for pensions were received. Of those acted upon, 7,346 were rejected.

The benefits payable under the system consist of old-age benefits at age 67, and invalidity benefits, payable at any age, for permanent disability for work.

The benefit consists of a basic benefit purchased by the contributions and varying with the amount contributed and, in certain cases, supplementary benefits. Thus, persons whose annual income is less than a certain sum (425 kronor for men and 400 kronor for women) and who are permanently disabled are entitled to a supplementary benefit from public funds. Basic pensions were granted to 50,033 persons in 1934 and supplementary benefits to 40,026 persons (of whom 26,730 also received basic benefits—contributory); these involved sums of 1,114,168 and 7,458,485 kronor, respectively.

Altogether 70,150,446 kronor was disbursed for supplementary benefits and relief during 1934 and 8,010,787 kronor for basic pensions.

In order to prevent or relieve invalidity, the insurance system is authorized to provide medical care. Under this authorization 6,971 persons received assistance during the year.

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[1] Krona at par=26.8 cents; exchange rate, 1934=25.98 cents.

[2] Data are from Sweden, Socialdepartementet, Pensionsstyrelsen, Allmänna pensionsförsäkringen, år 1934, Stockholm, 1935.

SELF-HELP MOVEMENT

Activities of Federally Aided Self-Help Cooperatives During 1935[1]

IT IS conservatively estimated that at least 100,000 persons have benefited from the cooperative self-help movement. That movement is an outgrowth of the depression. It originated spontaneously from the initiative of the more self-reliant of the unemployed who wished to maintain themselves independently of relief. The first group of this character was the Unemployed Citizens' League formed in Seattle during the summer of 1931. The exchange of the members' labor for food (principally vegetables) was the main activity of the organization at first. The news of the success of this group spread and soon similar organizations sprang up in various sections of the United States, but especially in the western and Pacific States.

Since that time many groups have been formed. Some of these dissolved after a short time, others survived for longer periods, and many are still active.[2]

Grants of Federal funds, authorized by the Federal Emergency Relief Act of 1933, made possible in a number of cases activities of a productive nature. At the end of 1933 grants had been made to 29 associations with a combined membership of nearly 60,000. A year later (January 1935) the number of grant organizations in operation had risen to 162 but their membership was only 15,733. At the end of October 1935 there were 215 groups under grant, having a membership of 14,614.[3] Thus, while the number of groups has almost continuously increased, the total membership has decreased considerably. It is pointed out that this contraction of membership is a "logical development."

[1] Except where otherwise noted, this article is based upon data furnished by the Division of Self-Help Cooperatives, Federal Emergency Relief Administration.

For previous articles on the self-help movement see Monthly Labor Review, issues of March, April, May, June, and October, 1933; February, July, and December, 1934; and December 1935.

[2] These self-help groups are autonomous bodies directing their own activities for the benefit of their own members. They should be distinguished from work projects operated under the jurisdiction of the relief authorities, or from manufacturing activities carried on by public authorities for the production of goods for relief clients. (An example of the latter was the Ohio Production Units—described in the Monthly Labor Review, December 1934 (p. 1311)—which were operated by an Ohio State agency from August 1934 to March 1935.)

[3] No information is available regarding the number of members of nongrant self-help associations throughout the United States. In California, however, where the movement has been much more extensive than in other States, it was estimated that 40 percent of the self-help membership in May 1935 was in nongrant groups. (Kerr, Clark, and Taylor, Paul S.: The self-help cooperatives in California. Berkeley, University of California Press, 1935.)

On the one hand, the most capable men and women in the groups, after having reestablished their self-confidence and gained additional valuable experience by working in these organizations, gravitated back into more desirable jobs in private industry. On the other hand, most of the groups found that their capitalization was too inadequate to provide sufficient gainful employment for a large membership and therefore gradually sloughed off the least desirable elements. They began to realize more and more that the continued existence of their organizations was only possible under sound business management. And they found it preferable to provide fairly steady work for a smaller number rather than spread the work over so large a number that the individual could get only a few hours' employment per week. Hand in hand with this contraction of membership there grew an increase in efficiency and in the quality of the goods produced and services rendered.[4]

Up to October 31, 1935, the self-help groups which had received Federal assistance had supplied their members with goods and services amounting to $3,164,887. During the first 10 months of 1935 members received goods and services valued at $1,216,647.

These organizations are still far from furnishing their members full support. The value of goods and services supplied by the groups in operation on October 31, 1935, during the first 10 months of 1935, to an average membership of 14,594 was $1,119,529, or an average of only $7.67 per member per month. In this connection, however, it should be pointed out (1) that much of this production has had to be accomplished with obsolete or makeshift equipment, due to insufficient capital, and (2) that the output does not by any means represent that of full-time employment. During the first 10 months of 1935 self-help activities had furnished 9,047,923 man-hours' work for an average of 14,594 members. This was at the rate of 14.3 hours per person per week. The general requirement of the groups is that each member shall work 2 days a week for the organization, and usually this is the maximum employment that the group activities are able to furnish, because of operating and marketing difficulties. In the main, only key personnel receive full-time employment, although the cooperative activities furnish many members full-time work in certain seasons. Others, including many small farmers, depend upon the cooperative only for supplementary income. The low average employment and compensation cannot therefore be used as a criterion for judging the value of the cooperative to the individual member.

Modest though the individual's income from the cooperative may be, nevertheless these self-help groups through their activities saved the public nearly three-fourths of a million dollars from January to October 1935. It is calculated that this amount would have been required, in addition to the Federal grants, to furnish support to those

[4] Federal Emergency Relief Administration. Division of Self-Help Cooperatives. Preliminary summarized report for Dec. 31, 1935, p. 10.

members who would have had to resort to public relief. Altogether it is estimated that they have effected relief savings totaling $2,278,287.

From August 1933 through October 1935 Federal grants totaling $2,831,413 had been made to self-help groups in the various States. No grants were made in either November or December 1935, as the relief funds available under the 1933 relief act and continued under the acts of the 2 following years had been exhausted. Any further use of Federal funds for this purpose will depend upon future Congressional action. Of the total grants, $1,636,594 (57.8 percent) had been expended or obligated at the end of October, while the rest was still available for use. The records of the Federal Emergency Relief Administration show that for every grant dollar expended, more than $2.50 had been obtained in benefits.

Geographic Distribution of Self-Help Movement in 1935

CALIFORNIA has always been the leading State as regards number of persons engaged in the self-help movement. Interested public authorities and certain natural advantages, such as climate and availability of foodstuffs, have been contributing factors. Other States in which substantial numbers of unemployed have been organized and received grants are Idaho, North Carolina, Pennsylvania, Utah, and Washington. Notwithstanding the comparatively rapid development of the self-help movement in several of the eastern States, the largest part of both societies and active members still remains, as in 1933 when the Bureau of Labor Statistics made its study, in the West.

Table 1 shows the regional distribution of the movement. At the end of October 1935 nearly 80 percent of the associations and about half of the members were in the Mountain and Pacific States. There was not a single active group in New England and only two groups in the West South Central States. The remaining organizations were about equally distributed in the other geographic divisions. The South Atlantic division accounted for nearly one-fourth of the total self-help membership. This was due to the unusually large size of the Virginia, West Virginia, and North Carolina organizations; the average membership in this division was more than six times as great as the general average for the country. Societies considerably above the general average were also found in the Middle Atlantic and East South Central divisions. The Western societies, though numerous, tend to be much smaller in size than those farther east.

Except in California, where a considerable proportion of the societies are in Los Angeles and its suburbs, the majority of the groups are located in the small towns and rural districts.

Table 1.—Distribution of Self-Help Groups Under Grant, and of Members, by Geographic Divisions, Oct. 31, 1935

Geographic division	Associations under grant		Membership		
	Number	Percent	Number	Percent	Average members per association
New England	0				
Middle Atlantic	5	2.3	1,112	7.6	222
East North Central	10	4.7	466	3.2	47
West North Central	12	5.6	849	5.8	71
South Atlantic	8	3.7	3,397	23.2	425
East South Central	8	3.7	1,291	8.8	161
West South Central	2	.9	149	1.0	75
Mountain	64	29.8	2,111	14.4	33
Pacific	106	49.3	5,239	35.8	49
Total	215	100.0	14,614	100.0	68

It is during the summer months that the greatest amount of activity—and the greatest number of members—is found in cooperative self-help groups. This is evident from examination of table 2 which shows the monthly fluctuations in number of grant associations and in membership during 1935.

Table 2.—Distribution of Self-Help Associations and Membership, by States and by Months, 1935

Associations

State	January	February	March	April	May	June	July	August	September	October	
										Number	Percent
Alabama	3	3	5	5	5	5	5	5	5	5	2.1
California	86	83	85	83	86	86	82	85	82	78	36.3
Colorado	11	11	11	11	11	12	11	10	10	9	4.2
District of Columbia	2	2	2	2	2	2	2	2	2	3	1.4
Florida				1	1	1	1	1	1	1	.5
Idaho	27	27	28	28	30	30	30	27	28	28	13.0
Indiana	2	1	1	1	2	2	2	1	1	1	.5
Iowa	2	2	2	3	3	3	3	3	3	3	1.4
Kansas	1	1	1	1	1	1	1				
Louisiana	2	2	2	2	2	2	2	2	2	2	.9
Michigan	7	6	6	6	6	6	7	7	8	8	3.7
Minnesota	2	1	1	1	1	1					
Missouri	1	1	1	1	1	1	1	8	8	7	3.3
Nebraska	1	1	1	1	2	2	2	2	2	2	.9
New Jersey	1	1	1	1	1	1	1				
New York					1	1	1	1	1	1	.5
North Carolina							1	1	1	1	.5
Ohio	1	1	1	1	1	1	1	1	1	1	.5
Oregon				1	1	1	1	1	1	1	.5
Pennsylvania	3	3	3	3	3	3	4	4	4	4	1.9
Tennessee	1	1	3	4	4	4	4	4	4	3	1.4
Utah									22	27	12.6
Virginia	1	1	1	1	1	1	1	1	1	1	.5
Washington	6	6	7	6	6	6	7	17	22	27	12.6
West Virginia	2	2	2	2	2	2	2	2	2	2	.9
Total	162	156	164	165	173	174	172	185	211	215	100.0

Table 2.—Distribution of Self-Help Associations and Membership, by States and by Months, 1935—Continued

Members

State	January	February	March	April	May	June	July	August	September	October	
										Number	Percent
Alabama	192	500	726	923	923	923	726	820	866	987	6.8
California	6,422	6,566	6,635	6,566	6,635	6,635	5,101	5,081	5,111	4,380	30.0
Colorado	513	680	680	680	680	720	701	634	634	290	2.0
District of Columbia	83	80	80	80	80	80	61	61	61	261	1.8
Florida				61	61	61	61	61	61	61	.4
Idaho	2,016	1,707	1,768	1,769	1,881	1,881	1,751	1,317	1,293	1,247	8.5
Indiana	61	25	25	25	55	55	55	25	25	108	.7
Iowa	203	204	131	234	234	234	242	238	294	233	1.6
Kansas	175	215	175	215	215	215	100				
Louisiana	176	186	187	186	186	186	188	188	168	149	1.0
Michigan	2,414	752	618	752	752	752	587	595	455	338	2.3
Minnesota	711	575	596	575							
Missouri	116	80	80	80	116	116	79	528	528	515	3.5
Nebraska	81	81	70	81	112	112	101	101	101	101	.7
New Jersey	36	35	35	35	35	35	35				
New York					117	117	117	117	117	117	.8
North Carolina							1,571	1,571	1,571	1,571	10.7
Ohio	314	315	315	315	315	315	315	20	20	20	.1
Oregon				28	28	28	28	28	26	13	.1
Pennsylvania	501	594	683	594	594	594	1,165	1,189	1,189	995	6.8
Tennessee	160	160	271	331	331	331	317	301	308	304	2.1
Utah									1,309	574	3.9
Virginia	672	665	657	665	665	665	651	658	676	675	4.6
Washington	723	820	901	820	820	820	696	865	1,048	846	5.8
West Virginia	164	163	163	163	163	163	96	96	96	829	5.7
Total	15,733	14,403	14,796	15,178	14,998	15,038	14,744	14,494	15,957	14,614	100.0

Decreases shown in the table in number of associations mean, in most instances, dissolutions of groups. Increases do not necessarily indicate new associations, but may simply represent the extension of Federal aid to a group already in existence. In certain States (Missouri, North Carolina, Tennessee, Utah, and Washington) the increased number of associations during the year is an indication of the fostering activities of some State agency.

It is evident from the table that a number of groups ceased operations during the year. In Colorado several of the weaker organizations were either closed or merged with other more competent groups. The Unemployed Trading Post at Wichita, Kans., liquidated in July because of inability to find a cash outlet for its product, as the State Relief Administration which had been purchasing these goods discontinued this practice. Data in the possession of the Division of Self-Help Cooperatives in the Federal Emergency Relief Administration show that "the value of the assets turned over to the State, plus the relief savings effected by this group, far exceed the value of the Federal grants made."

The Organized Unemployed, at Minneapolis, which at the time of the general study made by the Bureau of Labor Statistics in the spring of 1933 [6] was one of the largest and most active groups, went out of

[6] For an account of this organization, see Monthly Labor Review, April 1933. Other groups studied at that time were described in the same publication, issues of March to June 1933.

existence in May 1935. It had been operating for a considerable time not primarily as an autonomous self-help group but rather as a work project under the direct management of an employee of the State relief administration. It had been assisted by Federal grants totaling $50,000. Upon exhaustion of these grants the State authorities decided upon its dissolution, as the operations required a subsidy of some $3,000 per month. The organization's final report (for the month of April 1935) showed 570 members, tangible assets of $13,699, and income from sales of $31,821. During April, 61,134 man-hours' employment had been furnished.

Public Aid for Self-Help

DURING 1931 and 1932 the self-help organizations struggled along against great odds, utilizing whatever materials came to hand. Their labor was bartered for vegetables and fruit and any other commodities obtainable in that way, discarded clothing was collected and repaired for the members' use, and an enormous amount of ingenuity was exercised toward the utilization of materials that ordinarily went to waste. The combined efforts of the group were bent toward keeping the members from having to accept public relief or, failing that, toward making them self-sustaining to as great a degree as possible.

In this task they were handicapped by an almost total lack of funds with which to pay for necessaries that could not be obtained by the members' labor. Thus, water and lights were required. Telephones were necessary in order to keep in touch with possible opportunities for employment and for materials. Gasoline was another essential, in order to supply motive power for the antiquated trucks used to gather supplies. Both at this stage and later, however, the groups were aided in a number of places by donations from local people and even by the public authorities.

Federal Grants in Aid

In the spring of 1933 National recognition of the service these organizations were rendering was given by the inclusion in the Federal Emergency Relief Act of a clause permitting grants of Federal funds to self-help cooperatives.

These grants and their utilization have been under the general supervision of the Division of Self-Help Cooperatives, created in the Federal Emergency Relief Administration. That division has assisted State authorities desiring to sponsor self-help efforts and has advised the organizations themselves on problems of organization, production, and exchange.

As interpreted by the Division, such grants were to be considered operating capital and not to be used directly for subsistence. The production of goods insofar as they were not intended for consump-

tion by the members was to be confined to items that would not overload a competitive market.

The first Federal grant for self-help purposes was made August 11, 1933. From that time until the close of 1935 a total of $3,157,613 had been allocated for the use of these groups of unemployed. Table 3 shows the amount granted each month since August 1933. The amounts given cover Federal aid only. State appropriations (California, Utah, and Washington) for the encouragement of the movement are not included.

Table 3.—Federal Grants to Self-Help Organizations, by Months, August 1933 to December 1935

Year and month	Amount of grant	Year and month	Amount of grant
1933—August	$64,000	1935—January	$59,207
September	2,000	February	45,122
October	71,700	March	152,554
November	13,900	April	152,914
December	111,744	May	104,909
1934—January	46,320	June	14,163
February	340,610	July	281,532
March	30,000	August	35,900
April	96,125	September	268,335
May	112,765	October	483,485
June	147,830	November	(2)
July	63,721	December	(2)
August	[1] 155,961		
September	96,688	Total	[3] 3,157,613
October	125,957		
November	26,436		
December	37,316		

[1] Does not include $42,118 granted for self-help in Texas in August 1934 but transferred to the general relief fund in June 1935.
[2] No grants made.
[3] Includes $16,420 (not shown in items) transferred from cattle-program fund in Colorado.

During the 29-month period ending with December 1935 cooperative self-help groups in 26 States, 2 Territories, and the District of Columbia received Federal assistance. In addition, the Tennessee Valley Authority had been allotted the sum of $300,000 to promote cooperative activities in the region of its operations.

The largest amount of aid was given to the States of California and Michigan, the funds allotted to groups therein forming one-fifth and one-tenth, respectively, of the total grants. Of the sum of $2,831,413 allocated to individual States for the use of cooperative self-help groups, only $1,636,594, or 57.8 percent, had been expended or obligated by the end of October 1935. It has been the policy, under the guidance of the State officials, to husband these resources and to expend them as cautiously and as wisely as possible.

The total amounts of Federal aid granted up to the end of 1935, by States, and the amount which had been expended or obligated at the end of October are shown in table 4.

Table 4.—Federal Grants Made to Self-Help Cooperatives, August 1933 to Dec. 31, 1935, and Amount Expended and Obligated to Oct. 31, 1935

State	Federal grants, August 1933 to Dec. 31, 1935			State	Federal grants, August 1933 to Dec. 31, 1935		
	Total amount	Percent	Expended and obligated to Oct. 31, 1935		Total amount	Percent	Expended and obligated to Oct. 31, 1935
Alabama	$247,813	7.8	$111,112	Ohio	$88,577	2.8	$69,773
California	[1] 649,148	20.6	618,592	Oregon	3,900	.1	2,890
Colorado	176,541	5.6	133,998	Pennsylvania	34,073	1.1	23,454
District of Columbia	21,763	.7	1,047	Tennessee	64,638	2.0	18,141
Florida	23,682	.7	7,510	Texas	[3]		[3]
Idaho	241,865	7.7	141,081	Utah	99,970	3.2	3,285
Indiana	45,777	1.4	37,175	Virginia	95,685	3.0	68,228
Iowa	21,065	.7	14,811	Washington	158,723	5.0	80,306
Kansas	7,538	.2	7,538	West Virginia	43,425	1.4	37,856
Louisiana	40,000	1.3	17,129				
Michigan	339,397	10.7	148,076	Total	2,831,413	89.7	1,636,594
Minnesota	61,400	1.9	58,989	Puerto Rico	1,000	[4]	[2]
Mississippi	8,178	.3	7,655	Virgin Islands	25,200	.8	[2]
Missouri	196,300	6.2	13,291	Tennessee Valley Authority	300,000	9.5	[2]
Nebraska	11,150	.4	4,116				
New Jersey	17,500	.6	10,543	Grand total	3,157,613	100.0	1,636,594
New York	3,500	.1	[2]				
North Carolina	129,797	4.1	[2]				

[1] Does not include funds made available by State.
[2] Reports incomplete.
[3] Grant of $42,118 made in August 1934 transferred to general relief funds in June 1935.
[4] Less than 1/10 of 1 percent.

State Aid

As already noted, some State authorities have become interested in the movement and have assisted in various ways.

Idaho.—In Idaho a State-sponsored warehouse was set up in March 1935 with the aid of Federal funds, to assist in the exchange of surpluses on a State-wide scale. Through the efforts of the staff considerable improvement was made in the local groups' methods of cost accounting and of production, and in the grading of their products. With the cessation of the Federal emergency relief work, this warehouse was reorganized by the State on a smaller scale, but will continue to operate on a nonprofit basis for the benefit of the groups.

Illinois.—In Illinois a self-help cooperative in Cook County was given a small amount of capital by the State relief administration, which calculated that the organization was by its efforts saving the county about $4,000 in relief per month.

Michigan.—A division of self-help cooperatives was set up in Michigan which has provided advice on engineering and personnel matters and safety precautions, has arranged for the exchange of surplus products, and has itself purchased certain commodities for distribution to relief clients. A trustee corporation has recently been formed under whose supervision the unexpended portion of the grants has been pooled; this corporation will hereafter have general oversight of self-help activities.

Missouri.—The Missouri State Relief Administration in 1935 became interested in the self-help work and announced its intention, where practicable, of transforming relief-work centers into self-help projects. During the summer of 1935 a survey was made of noncompetitive industries which might be practicable for self-help activities.

North Carolina.—In North Carolina the administration took the lead in establishing, with Federal aid, a fish-processing plant. This is a noncompetitive project designed to assist in the marketing of fish and thus aid the hundreds of fishermen in the State who had been unable to make a living under the prevailing system of marketing fish.

Utah.—Utah was the scene of one of the earliest self-help experiments. That early organization [7] became inactive after about 2½ years' operation. A new start in self-help activities was made in 1935, when the legislature passed an act (approved Mar. 25) creating a State board charged with the duty of encouraging self-help activities. Thus, the present movement there was "initiated and developed entirely under State sponsorship in response to widespread local interest." [8] A State appropriation of $40,000 was made to carry on the work, and this was matched by a Federal grant of the same amount.

Washington.—As already indicated, the present self-help movement originated in the State of Washington. During the early period of operations of the Unemployed Citizens' League much assistance was given the organization by the authorities of King County. Indeed, at one stage, the distribution of relief commodities in Seattle was carried on through the machinery of the league.[9] It is only recently, however, that the State authorities have given any active support to the movement. In September 1935 a Federal grant of $103,335 for the groups was supplemented by a State appropriation of $100,000. A division in the State department of public welfare has been charged with the duty of supervising and advising the self-help organizations in the State, and several field agents are maintained for the purpose. A central warehouse service has also been undertaken to assist in the exchange of surplus group output.

California.—Probably the most continuous support of the self-help movement by public authorities has been given in California. During the pre-Federal era, the authorities of Los Angeles City and County gave frequent support, through donations of gasoline and appropriations with which to supply the cooperatives with those staple groceries (flour, sugar, salt, lard, coffee, cereals, etc.) which it had proved to be impossible to obtain in sufficient quantity by barter. Later the

[7] For an account of the Natural Development Association, see Monthly Labor Review, March 1933 (p. 451).

[8] Report of field agent to Division of Self-Help Cooperatives, Federal Emergency Relief Administration, September 1935.

[9] For an account of the activities of this organization, see Monthly Labor Review, May 1933 (p. 1015).

State relief administration became interested and has continued that interest ever since. A division of self-help cooperatives was established which has rendered continuous service. Through its efforts free gasoline and oil for the self-help trucks, work orders, and surplus commodities have been obtained. Advice and assistance have been given as to accounting methods, production engineering, etc. Legislative action granted free automobile licenses for the trucks. A system was put into force whereby key workers in group activities were paid work-relief wages, in order to enable them to give their full time and efforts to the cooperative work. From July 1934 through June 1935, $196,178 was paid in work-relief wages to these workers. During the year ending in June 1935 the value of motor fuel supplied to California self-help groups totaled $20,871.

The State relief commission came to the conclusion, as a result of its experience with the self-help groups, that the capital which had been supplied them was far too small to permit them to become self-supporting. As it felt that the groups had "demonstrated their ability to use a small sum of money effectively", the commission adopted a plan for financing them on a scale that would permit full self-support for some 4,150 unemployed families. The plan called for an expenditure of $3,000,000 by the State. That sum was earmarked by the commission from its funds with the understanding that $1,500,000 would also be granted for the work by Federal Government. Due to the cessation of the Federal relief work, that grant (which had been tentatively agreed to) was not forthcoming, and the whole plan is therefore still in abeyance. It is interesting to note, however, that one State thought well enough of the movement to be willing to invest such a sum "as an experiment in the economic and social rehabilitation of that portion of the present unemployed who, because of age or changed industrial conditions, will not be reabsorbed into private industry, but who are inherently capable of self-support." [10]

Beginning with July 1935, pending acceptance of the plan, the State began advancing $50,000 per month from State funds.

Services of Self-Help Groups

In the early stages of the movement diversity of skills and of services among the membership was regarded as important. The present tendency, which is being fostered by the State and Federal authorities, is toward specialization in production by individual groups. Instead of each group trying to produce everything required by the members, generally the organization specializes in the production of a few commodities which are of general demand and surpluses of which can be used for trading with other groups.

[10] California Emergency Relief Commission. Summary of proposed plan for self-help cooperatives in California, 1936. [Sacramento(?), 1935], p. 2.

Although the goods and services offered by the individual associations are therefore not of such variety as formerly, considering the movement as a whole a wide range of commodities and services is covered. Where it is possible, almost all of the groups carry on the cutting of wood for fuel, make new clothing and recondition discarded garments, raise vegetables and can them, and repair shoes. Nearly all operate commissaries. Other less common activities are weaving of cloth, sawmilling, the making of furniture and various home furnishings, the raising of poultry or rabbits, coal mining, and dairying. Two groups have undertaken the manufacture of cosmetics, mainly for trading purposes, and another makes false teeth for those of its members who need them.

Up to October 31, 1935, the self-help groups which had received Federal aid had supplied their members with goods and services valued at $3,164,887. During the first 10 months of 1935 such services to members amounted to $1,216,647. Summary data, by States, are shown in table 5.

Table 5.—Value of Goods and Services Supplied to Members by Self-Help Associations Under Grant

State	Through October 1935 [1]	1935: Jan. 1 to Oct. 31	State	Through October 1935 [1]	1935: Jan. 1 to Oct. 31
Alabama	$51,163	$51,163	Missouri	$17,051	$11,716
California	1,997,049	733,207	Nebraska	13,906	2,739
Colorado	86,157	22,020	New Jersey	7,505	----------
District of Columbia	836	836	Ohio	28,686	2,455
Florida	3,740	3,740	Oregon	96	96
Idaho	167,809	109,466	Pennsylvania	10,067	8,547
Indiana	33,388	12,150	Tennessee	2,656	1,324
Iowa	13,772	13,692	Utah	10,808	1,158
Kansas	7,195	7,195	Virginia	128,614	41,789
Louisiana	20,046	4,600	Washington	46,001	24,891
Michigan	273,662	68,571	West Virginia	14,942	5,369
Minnesota	227,271	89,923			
Mississippi	2,466	----------	Total	3,164,887	1,216,647

[1] Cumulative figure covering whole period of operation in each State, through Oct. 31, 1935.

Group Assets

As TABLE 6 shows, the value of the equipment and inventory of these groups rose from $535,116 on January 31, 1935, to $1,129,866 9 months later. This was an average per member of $36.13 in January and an average of $77.31 in October.

Table 6.—Value of Equipment and Inventories of Self-Help Groups Under Grant, on Jan. 31 and Oct. 31, 1935

State	Value of equipment and inventories		State	Value of equipment and inventories	
	Jan. 31, 1935	Oct. 31, 1935		Jan. 31, 1935	Oct. 31, 1935
Alabama	$10,305	$122,894	Nebraska	$1,024	$379
California	252,587	531,724	Ohio	16,732	12,083
Colorado	33,269	19,717	Oregon		3,617
District of Columbia	1,237	204	Pennsylvania	2,995	17,332
Florida		9,113	Tennessee	2,441	17,998
Idaho	40,777	118,033	Utah		9,346
Indiana	14,841	12,000	Virginia	14,290	15,478
Iowa	4,495	5,370	Washington	46,886	77,373
Louisiana	5,996	6,699	West Virginia	9,216	28,824
Michigan	76,353	105,978			
Missouri	1,669	15,764	Total	535,113	1,129,866

Employment Furnished to Members in Group Activities

THROUGH self-help activities employment aggregating 9,047,923 man-hours was furnished to the members during the first 10 months of 1935. This was an average per member of 14.3 hours per week. Table 8 shows the man-hours worked by the unemployed who were members of the self-help groups, during 1934, during the first 10 months of 1935, and during the whole period for which reports are available. In connection with this table it should be pointed out that in the early days of the self-help movement accounting was perhaps the weakest feature of these associations and reliable data are not available for periods prior to January 1934.

Table 7.—Man-Hours of Employment Furnished by Self-Help Cooperatives Under Federal Grant

State	Man-hours worked—			State	Man-hours worked—		
	During 1934	Jan. 1 to Oct. 31, 1935	Through Oct. 31, 1935		During 1934	Jan. 1 to Oct. 31, 1935	Through Oct. 31, 1935
Alabama		306,223	306,223	Missouri	21,616	94,676	116,292
California	[1] 966,501	6,711,754	7,678,255	Nebraska	40,705	11,663	52,368
Colorado		[2] 62,842	[2] 62,842	New Jersey	47,386	13,550	60,936
District of Columbia		943	943	Ohio	193,926	14,739	208,665
Florida		10,748	10,748	Oregon		2,990	2,990
Idaho	[1] 66,493	349,400	415,893	Pennsylvania	[1] 6,856	59,109	65,965
Indiana	[1] 18,756	147,164	165,920	Tennessee	8,701	19,552	28,253
Iowa	[1] 8,929	112,152	121,081	Utah	42,190	[3] 32,277	[3] 74,467
Kansas		36,534	36,534	Virginia	309,595	155,824	465,419
Louisiana	20,061	9,257	29,318	Washington	188,490	172,684	361,174
Michigan	559,712	410,016	969,728	West Virginia	[1] 17,810	74,047	91,857
Minnesota	262,467	239,779	502,246				
Mississippi	19,396		19,396	Total	2,799,590	9,047,923	11,847,513

[1] No reports for period prior to August 1934.
[2] No reports for period prior to March 1935.
[3] Data include November 1935.

Savings to Public by Self-Help Groups

DATA are not available on a national scale to show what proportion of the whole self-help membership are receiving relief. In June 1935, of the active members of grant cooperatives in California 53.7 percent were entirely self-supporting, their income from the self-help activities being supplemented from personal sources only, and the remainder (46.3 percent) received some unemployment relief to make up their budgetary deficiencies.[11] These proportions would undoubtedly vary from State to State, but may be taken as roughly indicative of the extent to which the self-help membership has been able to support itself.

It is evident, of course, that the income from the cooperatives (which averaged only $7.67 per member over the first 10 months of 1935) would be entirely inadequate for full support. At the same time even this amount represents a considerable saving to the taxpayers in relief funds which would have been required for the support of these persons in the absence of the cooperative.

The Federal Emergency Relief Administration has calculated the amounts of relief savings effected by the activities of the cooperatives. These data for the first 10 months of 1935, and for the whole period since Federal aid was first extended, are shown in table 8.

Table 8.—Relief Savings of Self-Help Cooperatives, 1935, and Whole Period

State	Relief savings		State	Relief savings	
	10 months, January to October 1935	1933 to October 1935		10 months, January to October 1935	1933 to October 1935
Alabama	$31,050	$31,050	Missouri	$9,692	$9,692
California	455,007	1,627,835	Nebraska	3,994	14,884
Colorado	12,235	51,876	Ohio	3,215	14,467
District of Columbia	150	150	Oregon	234	234
Idaho	58,683	60,414	Pennsylvania	8,004	6,911
Indiana	508	3,806	Virginia	41,940	128,613
Iowa	2,800	3,144	Washington	13,220	28,838
Kansas	5,285	5,302	West Virginia	1,480	7,779
Louisiana	3,206	8,766			
Michigan	34,213	96,713	Total	727,203	2,278,287
Minnesota	42,287	177,813			

[11] California Emergency Relief Administration. Division of Self-help Cooperatives. Annual report, June 30, 1935. San Francisco, 1935, p. 35.

PRODUCTIVITY OF LABOR

Employment and Productivity in Bituminous-Coal Mines in 1934

EMPLOYMENT, days worked, and production in the bituminous coal industry of the United States increased in 1934 as compared with the previous year. There was also a rise in the percentage of total product mined by mechanical methods, i. e., mined and loaded mechanically underground and by power shovels in strip pits, but the percentage of total coal cut by machine decreased slightly. Productivity per man per day showed a decline from 4.78 net tons in 1933 to 4.40 tons in 1934, reflecting the effects of the decrease in the daily working shift from 8 to 7 hours, made effective April 1, 1934, in accordance with an amendment to the bituminous-coal industry code under the National Industrial Recovery Act. The salient statistics of the industry are shown in table 1, for the years 1913, 1923, 1933, and 1934, as published by the Coal Economics Division of the United States Bureau of Mines.[1]

Table 1.—Salient Statistics of Bituminous-Coal Industry, 1913, 1923, 1933, and 1934

Item	1913	1923	1933	1934
Total production (net tons)	478,435,297	564,564,662	333,630,533	359,368,022
Number of active mines of commercial size	5,776	9,331	5,555	[1] 6,258
Capacity of existing mines with existing labor force (assuming 308-day working year)	635,000,000	970,000,000	615,000,000	622,000,000
Average number of days mines operated	232	179	167	178
Total number of men employed at mines in operation	571,882	704,793	418,703	458,011
Output per man per day (net tons)	3.61	4.47	4.78	4.40
Percent of output cut by machine	50.7	66.9	80.0	79.2
Number of power shovels in strip pits	[2] 48	442	389	458
Quantity mined by stripping	[2] 1,280,946	11,844,347	18,270,181	20,789,641
Quantity mined mechanically underground	([3])	([3])	37,820,000	41,433,000

[1] Figures for 1934 not strictly comparable with those for earlier years. In 1934 coverage was wider as reports on small trucking mines were obtained in some States through the cooperation of N. R. A. divisional code authorities.
[2] Figure for 1914, the earliest year for which record is available.
[3] Not available.

The increase in number of active mines of commercial size by 700 in 1934 as compared with 1933 is accounted for in part by more complete reporting in certain areas, the Bureau of Mines points out. Capacity of existing mines with the existing labor force, assuming a

[1] U. S. Department of the Interior. Bureau of Mines. Coal Economics Division. Bituminous Coal Tables, 1934, by L. Mann, W. H. Young, and F. G. Tryon. Washington, 1935.

308-day working year, increased by 7 million tons between 1933 and 1934. The figures further show that the average number of days mines operated in 1934 was 178. This was an increase over 1933 of 11 days, bringing the days worked in 1934 almost up to the level of 1923 when the average was 179 days. Coal mined by stripping and by mechanical means underground in 1934 represented over 17 percent of the total output, as against 16 percent in 1933. In terms of the actual number of tons mechanically mined the total for 1934 was 6 million tons greater, or 10.9 percent above 1933.

In table 2, production, men employed, days of operation, and output per man per day in the bituminous-coal industry are shown by States in 1934 and for the United States in 1933 and 1934. Summary figures are also included for the anthracite industry for 1933 and 1934.

Table 2.—Production and Employment in Coal Mines (Exclusive of Wagon Mines), by States, in 1934, and in the United States in 1933 and 1934

State	Total quantity (in tons)	Number of employees	Average number of days mines operated	Average tons per man per day [1]
Alabama	9,142,117	18,851	185	2.62
Alaska	107,508	93	217	5.33
Arizona	9,058	19	296	1.61
Arkansas	856,432	3,415	102	2.46
California, Idaho, and Oregon	29,138	76	162	2.36
Colorado	5,210,933	8,094	158	4.08
Georgia	32,716	113	185	1.56
Illinois	41,272,384	46,067	160	5.62
Indiana	14,793,643	11,173	171	7.75
Iowa	3,366,992	7,721	156	2.80
Kansas	2,508,254	3,744	151	4.45
Kentucky	38,525,235	49,509	180	4.33
Maryland	1,627,112	2,976	176	3.12
Michigan	621,741	1,556	157	2.54
Missouri	3,352,283	5,540	141	4.29
Montana	2,565,702	1,590	166	9.73
New Mexico	1,259,323	2,342	164	3.29
North Carolina	3,140	18	221	.79
North Dakota	1,753,888	1,518	174	6.65
Ohio	20,690,564	29,247	167	4.23
Oklahoma	1,208,289	3,225	124	3.02
Pennsylvania	89,825,875	126,079	179	3.98
South Dakota	42,407	91	152	3.07
Tennessee	4,135,790	7,308	185	3.05
Texas	759,289	805	178	5.30
Utah	2,406,183	2,807	171	5.00
Virginia	9,376,681	12,207	200	3.84
Washington	1,382,991	2,161	193	3.32
West Virginia	98,134,393	105,906	196	4.73
Wyoming	4,367,961	3,760	188	6.17
Bituminous:				
1934	359,368,022	458,011	178	4.40
1933	333,630,533	418,703	167	4.78
Anthracite:				
1934	57,168,291	109,050	207	2.53
1933	49,541,344	104,633	182	2.60

[1] Based upon (1) the "reported" number of man-shifts where the operator keeps a record; otherwise upon (2) "calculated" number of man-shifts obtained by multiplying the average number of men employed underground and on the surface at each mine by the number of days worked by the mine and tipple, respectively. Using throughout the "calculated" man-shifts as developed before the year 1932, namely, the product of the total number of men employed at each mine times the tipple-days, the average output per man per day for the bituminous mines of the country as a whole was 4.42 tons, a figure which is strictly comparable with 5.06 in 1930, previously published.

In 10 States and Alaska the number of days mines operated totaled 180 days or over. Of this group the tonnages mined were of little importance in Alaska, Arizona, Georgia, and North Carolina, but the production of Alabama (185 days) was over 9 million tons; that of Kentucky (180 days) 38.5 million tons; Tennessee (185 days), 4.1 million tons; Virginia (200 days), 9.3 million tons; Washington (193 days), 1.3 million tons; West Virginia (196 days), 98.1 million tons, and Wyoming (188 days), 4.3 million tons. The shortest working year (of less than 160 days) was shown for Arkansas, Colorado, Iowa, Kansas, Michigan, Missouri, Oklahoma, and South Dakota, none of which produced over 5.2 million tons.

The high productivity rates of Illinois, Indiana, Montana, North Dakota, and Wyoming reflect the prevalence of mechanical methods of mining. For example in Illinois, Indiana, and Wyoming, mechanical loading of coal underground is widely practiced. In North Dakota 61.4 percent of the total product was mined by stripping in 1934. The majority of Montana's coal is mined by stripping or mechanically loaded underground.

Movement for Labor Efficiency in the Soviet Union[1]

A MOVEMENT toward efficiency methods—utilization of mechanical devices to the fullest possible extent and the elimination of waste and of lost motion—was started in the coal-mining industry of the Soviet Union in August 1935. Begun by the initiative of a coal miner named Alekséi Stakhánov, it was enthusiastically adopted by other coal miners and later in many other industries, including agriculture.

In order better to understand the importance of this efficiency movement it should be remembered that when the Soviet regime was established nearly 80 percent of the population consisted of peasants, largely illiterate and without technical training not only in manufacturing industries, but also in agriculture, in which most of them were engaged. Industries were undeveloped. What little machinery there was was out of date. Although the country possessed untold natural resources, they were similarly undeveloped. Ways of communication and transportation were meager and in poor condition. The World War and the following revolutions and counterrevolutions destroyed much of those meager productive facilities which were in existence before the World War.

It was necessary for the new regime to start from the bottom to built up industries under the slogan of industrialization of the Soviet Union; to train and educate the immense backward masses of the

[1] Data are from Izvestia (Soviet official daily), Moscow, Nov. 15, 20, and 22, 1935; and from International Labor Office, International Labor Review (Geneva), January 1936.

peasant population for production and distribution; to develop natural resources; and to construct roads for transportation and establish ways for communication.

This program entailed much effort, sacrifice, and a very low standard of living, notably during the prosecution of the first 5-year plan (1927 to 1932). It was necessary first to build up industries for production of capital goods, leaving the development of production facilities for consumers' goods for the second 5-year plan (1933 to 1937). The resulting deficit in consumers' goods led to the introduction of ration cards for the entire population. As time went on and conditions improved, however, the ration-card system of food distribution was abolished and free trade reestablished.[2]

One of the greatest difficulties confronting the authorities was the lowering of the cost of production or, in other words, increasing of productivity of labor. In order to stimulate workers toward greater efforts in their learning and work, various methods have been applied, such as the introduction of piecework, payment of efficiency bonuses, establishment of minimum standards of output, wage scales adopted by collective agreements, rewards for proper handling of tools, supplements for saving material, titles and orders for the workers who especially distinguished themselves in efficiency, etc.

The Soviet authorities repeatedly have emphasized the need for greater efficiency. Stalin gave a now famous slogan for it when in his public address on May 4, 1935, he stated: "The cadres (labor forces) decide everything!"

The results of all these measures are shown in the present-day efficiency movement. For instance, Stakhánov admits that he was inspired by Stalin's speech when he decided on new methods of mining.

Although this new efficiency movement in the Soviet Union embodies no new scientific ideas, it is noteworthy because apparently it was initiated and is being maintained and developed by the workers themselves. In his address to the first All-Union Conference of Stakhánovites, held at Moscow on November 14, 1935, Stalin said:

> It is a striking fact that this movement [Stakhánov efficiency movement] began as a voluntary, almost an elemental, movement from below, without any pressure whatever by the administration of our enterprises. Moreover, this movement had its inception and began to unfold against the will of the administration of our enterprises and it had to fight even the administration.[3]

He then cited a number of cases in which the workers had to contend against their superiors—technicians and engineers—who clung and still cling to the old methods and standards.

That the old records of output are now being broken in various industries and occupations all over the Soviet Union has been revealed by reports coming to the central offices in Moscow. According to

[2] See Monthly Labor Review for January 1936 (pp. 268–272).
[3] Izvestia (Soviet official daily), Moscow, Nov. 22, 1935, p. 1.

an editorial in the Izvestia of November 15, 1935, "In almost all branches of industries there are hundreds and thousands of people who are now in an orderly fashion producing twice and thrice as much as the prescribed standard."

The coal-mining industry was on a low level as regards labor productivity. When Stakhánov became a miner his initial output was about 5 or 6 tons per shift, which was a normal figure for that industry. After a course in coal mining, involving instruction in the use of the power machine for undercutting the coal, he increased his output to 12 or 13 tons per shift. Under the procedure followed at that time, the miner had to clear away the coal and do his own timbering as well as the cutting of coal, and only about two-thirds of the shift time was utilized in the actual cutting of the coal. Thus the mechanical mining equipment was idle a considerable share of the time.

Through some changes in working procedures, by utilizing the services of two assistants for clearing and timbering and by devoting his own time exclusively to cutting, Stakhánov was able to increase the output for the group to 102 tons per shift, then to 175 tons, and finally to 227 tons per shift.

In one mine the standard output had been 7 tons per machine per shift and the number of workers employed (both underground and surface) was 117. The total output of the mine was about 250 tons per shift. Adoption of Stakhánov's methods raised the output to 335 tons per shift. At the same time the total number of workers engaged was decreased to 98.

At the above-quoted All-Union Conference of the "Stakhánovites" in the Soviet industries and trades, Stakhánov described his method as involving the following: A better division and specialization of labor; continuous use of cutting machines and other mechanical devices; and better planning of processes to eliminate time lost while waiting for other work to be done. The method involves no extra effort on the part of the workers, as has been testified by all workers who have followed his method.

Coal mining in the Soviet Union is remunerated on the piece basis, at a specified rate per ton, and with a progressively increasing supplement for all output above the standard. The effect of the new method upon his earnings Stakhánov described as follows: Formerly his earnings amounted to from 500 to 600 rubles [4] per month. But in September 1935, for 18 shifts, with his new method he earned 1,000 rubles per month and in October for 14 shifts, 1,008 rubles. In September one other miner had earned 1,338 rubles and still another, 1,618 rubles per shift.

[4] The value of gold ruble is 51.5 cents in United States gold. The value of paper ruble, in which the wages are paid, was fixed by a Soviet Government decree, effective from Jan. 1, 1936, at the rate of 5 paper rubles equaling $1 United States currency, or 1 ruble (100 kopeks) = 20 cents United States currency.

INDUSTRIAL AND LABOR CONDITIONS

Southern Regional Conference on Labor Standards

AT THE request of the Governor of South Carolina, the Secretary of Labor arranged a southern regional conference on labor standards at Columbia, S. C., January 20 and 21, 1936, to which the Governors of eight States were invited to send delegates.[1] Representatives from South Carolina, North Carolina, Florida, Georgia, Alabama, Mississippi, Tennessee, and Virginia met at Columbia and participated in the discussions at the conference.

In addressing the delegates, Secretary Perkins stated that the conference should aid in the program to raise labor-law standards so that a desirable common level might be reached in all States after discussion. The desirability of continuing a technique of Federal-State cooperation in the field of labor legislation was emphasized. "States are entirely free to develop their labor laws to meet their own peculiar problems and yet can seek through the conference method the information which can be made available to them through the United States Department of Labor to unify and harmonize standards so that working men and women throughout the country may have similar protection."

The subjects on the agenda included child-labor regulation, hours legislation, State labor departments and the technique of labor-law administration, and the social-security program. The discussion focused upon the need of having in each State a labor department charged with the administration of all laws affecting wage earners and upon various aspects of social security legislation. A summary of recommendations approved by the delegates is given below:

Establishment of State labor departments.—The establishment of State labor departments to bring into one administration agency the enforcement of all labor laws, including the administration of unemployment insurance, workmen's compensation, and a free system of employment agencies.

Hours of labor.—The adoption of a practical program for the progressive and rapid reduction of daily and weekly hours for workers, with consideration given to the best hours laws now in effect in the most legislatively advanced industrial States within the competitive area of the southern section of the United States; and the inclusion, wherever practicable, of both men and women within the scope of such laws.

Child labor.—The incorporation in State child labor laws of at least the minimum standards established by the N. R. A.; ratification of the Federal child labor amendment whereby rational minimum standards may be achieved.

Unemployment compensation.—The enactment of unemployment-compensation legislation.

Old-age pensions.—The adoption of an amendment to the Social Security Act adding, immediately following the last sentence of section 3, title 1 of the act (popularly known as the "old-age pension" title), as a part of the section, the following: "*Provided further*, That pending the next meeting of the general

[1] In January 1935 a similar conference had been held in Nashville, Tenn.

assembly of those States not having the State plan herein mentioned, and pending the amending of the constitution of those States whose constitution prevents such participation, the Social Security Board is authorized to set up a temporary plan that will enable temporary participation by such State pending the setting up of the State plan."

The adoption of similar amendments, properly worded, to every other title of the Social Security Act to enable States whose constitutions prevent participation under such other titles of the act, to have as much temporary participation as may be legally possible pending the qualification for full participation.

Labor Provisions of Wisconsin Recovery Administration Codes

CODES for 11 service trades and industries have become effective under the Recovery Act of the State of Wisconsin [1] since the code-making powers of the President under the National Industrial Recovery Act were declared unconstitutional by the Supreme Court in May 1935. These codes establish the workers' right to collective bargaining through representatives of their own choosing, fix minimum wages, maximum hours, and the minimum ages for employment of minors. As the Wisconsin recovery law was found constitutional by the supreme court of the State early in 1936, the working conditions thus established are being continued and the way is opened for the adoption of standards for other trades and industries. The terms of the Wisconsin codes closely resemble those of the national codes that were effective during 1933–35, summaries of which were given in the Monthly Labor Review, issues of December 1933 to May 1935, inclusive.

The procedure in approving codes for Wisconsin trades has been substantially the same as that followed by the Federal Government through the National Recovery Administration. After holding public hearings, the terms submitted by the employers in any particular trade have been subjected to scrutiny and revision by the Wisconsin Recovery Administration, and later transmitted to the Governor of the State for his approval, with the recommendations of the Administrator.

In making some of his reports to the Governor the Administrator has drawn attention to the fact that there was a need for restrictions and a tendency to revert to pre-code standards after the Federal codes ceased to operate, and sometimes even earlier.

In the following tabular analysis the principal labor provisions of the Wisconsin codes adopted up to the close of 1935 are summarized. Only the major provisions are shown, and there is no attempt to enumerate exceptions that may be allowed for special classes of labor or the detailed gradations in wage rates for different classes of employees.

[1] Ch. 182, Acts of 1935.

Labor Provisions in Codes Adopted Under Wisconsin Recovery Act During 1935

Industry and date effective	Minimum wages (excluding apprentices and learners)	Maximum hours	Provisions for overtime pay	Minors of specified age excluded from employment
Barber shops (July 16).	$17 per week plus 60 percent of gross receipts over $26 from barber's services for first 48 hours, plus 50 cents per hour plus 60 percent of gross receipts over $26 after 48 hours per week, licensed journeymen in places of 2,500 population or over, $16 per week plus 60 percent of gross receipts over $25 from barber's services for first 48 hours, plus 50 cents per hour plus 60 percent of gross receipts over $25 after 48 hours per week, licensed journeymen in places of less than 2,500 population. Part-time employees, $5 per day plus 65 percent of gross receipts over $7 per day for barber's services on Saturdays or days before holidays; 50 cents per hour plus 65 percent straight commission, on other days; 65 percent commission but not less than 40 cents per hour, for consistent part time on week days, Saturdays, and days before holidays.	54 per week, general. 62 per week, shop operation.	No provision	Under 16, general; under 18 unless labor permit is on file except indentured apprentices.
Bottled soft drink (Aug. 24).	50–60 cents per hour, according to population, general. 35–45 cents per hour, according to population, helpers. $14–$16 per week, according to population, office. $12–$14 per week, according to population, office boys and messengers not to exceed 10 percent of office force, provided that any establishment may employ one office boy or messenger.	40 per week, 8 per day, general; 48 per week, during specified peak period, route salesmen, chauffeurs, and deliverymen. 10 percent tolerance over general hours, engineers and firemen. 56 hours per week, watchmen. 6 days in 7 (watchmen, engineers, and firemen, excepted).	1½ regular rate after 8 hours per day and 40 hours per week, general. 1½ regular rate after 48 hours per week in specified peak period, route salesmen, chauffeurs and deliverymen.	Do.
Bowling trade (Aug. 1).	$12–$20 per week, according to population, general. $11–$15 per week, according to population, porters and watchmen. 20 percent of price charged per line for lines set up, but not less than 4 cents per line for 10-pin bowling and 3 cents per line for "small ball games", and in no case less than 30 cents on days work is commenced, pin setters. 40 cents per hour, part-time employees.	52 per week, 9 in 24, general. 40 per week, 8 in 24, office. 24 days in 28, general.	No provision	Under 17, general, under 18, hazardous or unhealthful occupations.

Labor Provisions in Codes Adopted Under Wisconsin Recovery Act During 1935—Continued

Industry and date effective	Minimum wages (excluding apprentices and learners)	Maximum hours	Provisions for overtime pay	Minors of specified age excluded from employment
Cleaning and dyeing (July 29).	33–60 cents per hour, according to occupation and experience, cleaning-plant employees. $15–$18 per week, according to experience, route salesmen and truck drivers. $20 per week, engineers, firemen and maintenance men. $14 per week, store clerks and store help. 27 cents per hour, plant employees and $13 per week, others, in cities of less than 100,000 population. No reduction in weekly earnings for those whose weekly hours are reduced by less than 20 percent under code. Reduction of not more than 50 percent, calculated by multiplying reduction of hours by hourly rate, for those whose weekly hours are reduced by over 20 percent.	40 per week (in peak periods of not over 9 weeks in 6 months, 45 per week, provided average of 40 per week is not exceeded), general. 48 per week average, with peak period allowances, engineers, firemen, or maintenance employees. 48 per week in cities of 25,000 population or over and 6 per week additional in cities or towns of less than 25,000 population, route salesmen. 48 per week, clerks	1½ regular rate for hours in excess of maximum provided, employees on emergency maintenance or repair work.	Under 17.
Crushed stone, sand, and gravel (Aug. 28).	40 cents per hour, general. 32 cents per hour, water boys, not to exceed 4 percent of total number of employees (provided there is 1 water boy). $12–$15 per week, according to population, office. $14 per week, watchmen.	40 per week, general. 42 per week averaged over 3 months in any 6 months, 6 days per week, office. 48 per week, outside delivery employees, employees on emergency work (not to exceed 5 percent of total employees). 60 per week, watchmen.	1½ regular rate for hours in excess of maximum specified.	Under 16, general. Under 18, gravel pits and quarries.
Highway construction (July 15).	40 cents per hour, unskilled labor. $12–$15 per week, according to population, office.	40 per week averaged over 6 months (maximum 48 per week, 8 per day).	1½ regular rate after 8 hours per day and 40 per week (excluding office, emergency work, watchmen, etc.).	Under 16, general. Under 17 unless labor permit is on file (except indentured apprentices) up to Sept. 1, 1935, and 18 thereafter. Governed by apprenticeship law.
Mason, concrete and, carpenter division of the construction industry (Aug. 21).	45–65 cents per hour, according to geographic area, laborers. $0.80–$1.25 per hour, according to geographic area, masons. $0.65–$1.10 per hour, according to geographic area, cement finishers. $0.65–$1.05, according to geographic area, carpenters and reinforcement-steel setters. 40 cents per hour in territories not listed, laborers. 65 cents per hour in territories not listed, carpenters and cement finishers. 75 cents per hour, in territories not listed, masons. 25–95 percent of journeymen's scale but not less than 25 cents per hour, apprentices. $12–$15 per week, according to population, office.	40 per week, general. 48 per week on remote projects where camps or floating plants and where time is lost owing to inclement weather. 56 per week, watchmen.	Double time after 8 hours in 24 and for Saturday, Sunday, and legal holiday work, mechanics. 1½ regular rate after 8 hours in 24 and double time for Saturday, Sunday, and legal holiday work, laborers.	
Painting, paperhanging and decorating (July 20).	$0.50–$1.10 per hour, according to geographic area and population, journeyman painters. $11–$15 per week, according to population,	40 per week, 8 in 24, general. 48 per week on remote projects, to make up time lost owing to inclement weather within 4 weeks, and where	No provision	Under 16, general. Under 17 unless labor permit is on file, except

Painting, paperhanging and decorating (July 20).	$0.50–$1.10 per hour, according to geographic area and population, journeyman painters. $11–$15 per week, according to population, office.	40 per week, 8 in 24, general. 48 per week on remote projects, to make up time lost owing to inclement weather within 4 weeks, and where sufficient qualified help is not available, general. 56 per week, watchmen.	No provision	Under 16, general. Under 17 unless labor permit is on file, except indentured apprentices, up to Sept. 1, 1935, and 18 thereafter.
Shoe rebuilding trade (Aug. 19).	$16–$25 per week, according to class of city, shoe rebuilders. $12–$15 per week, according to class of city, others. $6 per week, bootblacks. 55–75 cents per hour, according to class of city, part-time employees. 25 cents per hour, bootblacks on part time.	44 per week, 8 in 24 on week days, and 10 per day on Saturdays and days preceding holidays, 48 per week from Oct. 1 to Nov. 15, general. 44 per week, 8 in 24 on week days and 10 per day on Saturdays and days preceding holidays, employers whose duties include shoe rebuilding (1 employer in each establishment excepted) 6 days in 7. 66 per week in Milwaukee, 71 per week elsewhere, store hours.	1½ regular rate after 8 hours per day, and 44 hours per week, general.	Under 17 (except bootblacks who obtain permits as required by law).
Tavern industry (July 22).	22½ cents (25 cents per hour for part time in cities over 500,000) experienced female employees. $12–$15 per week, according to population, male employees in general. $15–$21.50 per week, according to population, bartenders. $1.75–$2.50, according to population, part-time bartenders working less than 4 consecutive hours. Meals not to cost over 25 cents each or $4.50 for 21 meals per week, where meals are a part of wage and are deducted from wages of employee.	54 per week, male employees. 48 per week, female employees. Equivalent of 6 days per week, 2 half days (of 12 hours) rest or 1 full day of rest per week during working hours.	No provision	Under 16 in any tavern. Under 17 unless labor permit is on file up to Sept. 1, 1935, and 18 thereafter.
Window cleaning (Aug. 6).	50–60 cents per hour, according to location and population, journeymen. 80–100 percent of journeyman's wage according to total hours in service, learners. 1 learner for 1,000 hours of journeyman's work performed in 1 year; 2 learners for 6 or more journeymen employed 1,000 hours per year.	160 in 4 weeks, 10 per day (in peak periods Apr. 15–June 15 and Oct. 15–Dec. 15, maximum of 185 in 4 weeks and 10 per day).	1½ regular rate after 8 hours per day.	Under 17, general. Under 18 as window cleaner unless labor permit on file.

Production Control in the Belgian Coal Industry

By MARGARET H. SCHOENFELD, of the BUREAU OF LABOR STATISTICS [1]

A SYSTEM of controlled coal production was voluntarily inaugurated in Belgium early in 1935 by the operators. Under the plan adopted a specially organized Quota Commission was established to fix the tonnages to be produced by the various units in the industry. In working out its plan for tonnage allotments the Quota Commission concentrated upon securing the maximum protection to mine labor in the thickly populated area of the Southern Basin where the mining industry is declining, while at the same time affording to the newly developed Limbourg Basin of the north an opportunity at least to maintain the position in the industry which it has won owing to its superiority in physical conditions, mine layout, and engineering installations. The first quota was established for a 6-month period beginning in April 1935 whereby tonnages to be mined were allotted to the 67 coal companies in operation on the basis of a formula taking into account past sales. The amount of coal sold (*écoulement*), rather than the tonnage produced, was made the basis of calculation. Tonnage sold in 1934 was given a weight of two-thirds, and the remaining one-third represented the average annual sales between 1926 and 1933, except in the Northern Basin which was allotted approximately 20 percent of the tonnage to be produced, the share which it had claimed in the free-competition period of 1934 which preceded the control scheme. The distribution of tonnage among companies of the north was also made in accordance with the percentage distribution of sales as of 1934. As drawn up, the plan permitted some flexibility in establishing company quotas, in order that undue hardships and further inequalities might be avoided. It is probable that minor changes were made in the second period of operation, beginning in October 1935, under the system of prorating tonnage, but the broad principles of planned production initiated by coal producers in Belgium are being continued.

Conditions Prior to Adoption of Plan

THE Belgian coal industry, like that of other nations, has been adversely affected by the world depression of recent years. After 1929, when production of coal reached a peak of 38 million tons,[2] it was necessary to curtail output sharply in order to keep stocks of unsold coal as low as possible. Not only was domestic demand for

[1] From material gathered in personal interviews and from information from Annales des Mines de Belgique, Brussels, Ministère de L'industrie et du Travail, Administration des Mines, 1934; The Belgian Coal Industry in 1934, by Charles Demeure, Louvain, University of Louvain, 1935; Industrial and Labor Information (Geneva), Dec. 9, 1935, p. 371; and International Coal Trade, U. S. Bureau of Mines, Washington, Dec. 31, 1935, p. 8.

[2] Throughout this discussion the metric ton (2,204.6 pounds) is the basis of calculation.

fuel seriously cut, owing to industrial inactivity, but the combination in neighboring countries of lowered use and the establishment of barriers against coal imports resulted in a sharp decrease in Belgium's coal exports. Exports fell from 3,962,000 tons in 1930 to 3,491,000 tons in 1931, but rose to 3,588,000 tons in 1933 and 3,810,000 tons in 1934. The movement in domestic consumption of coal was even more adverse, the figures (including Luxemburg) being as follows:

	Tons		Tons
1929	38,486,000	1932	27,110,000
1930	33,964,000	1933	27,007,000
1931	31,125,000	1934	27,987,000

During 1930 monthly figures representing stocks on hand ranged from under 500,000 tons in January to 2,500,000 tons in December but in the ensuing 4 years stocks fell below 2,000,000 tons in only 1 month (November 1932) and were generally well over 3,000,000 tons and in 1 month over 4,000,000 tons (June 1932). For a country with a normal annual production of approximately 25,000,000 tons, stocks of such proportions constitute an extremely heavy burden, and it was this situation that led the members of the industry to cast about for some cooperative method of regularizing production so that one producer would not fear curtailment of output lest a competitor secure an unforeseen order.

Origin of the Plan

Owners of Belgian coal properties are accustomed to joint action in solving industrial problems. For example, the National Institute of Mines at Paturages, where experimental work is carried on in the field of explosives and safety, is an independent institution supported by operators, the miners' union, the public, and the Government. Its findings are free from the dangers of unscientific modification (either political or industrial) and when a discovery is made indicating that a change in mine technique or safety methods would be desirable the institute seeks to have it adopted by the operators voluntarily rather than by legislative action. To this end the director of the institute keeps in close touch with the members of the industry. In turn, the members of the industry seek advice from the institute and are free to submit problems for analysis.[3]

Although the Belgian system of production control was voluntarily adopted, it should be pointed out that the Government first sought to secure a controlled industry through a bill introduced on June 26, 1934, for compulsory regulation. The bill was rejected but an act was passed on December 7, 1934, including a part of the earlier bill by which the Government was empowered to establish and maintain

[3] When such problems are individual matters, there is a fee for the work involved.

an ordered system of production, sale, import, export, and transpor of coal.

Following the enactment of this law the coal owners set up the Central Coal Office, a cooperative organization, established for a 3-year period, which is the keystone of the coal industry at present. Rules of the Office have been approved by the Minister of Economic Affairs. All coal mines in the country belong to the organization and it is responsible for regulating production, organizing sales to large consumers, supervising sales in general, distributing orders, regulating exports, and fixing prices.

The Government has supplemented the action of operators in regulating the coal industry by organizing the Advisory Coal Board. This body was set up by order of January 15, 1935, and is composed of Government representatives, coal-mine owners, miners, consumers, merchants, and representatives of transport undertakings. It is charged with advising the Government on questions pertaining to the coal industry which may be referred to it by the Ministry of Economic Affairs.

The Plan

THE general council of the Central Coal Office agreed at its meeting of February 19, 1935, to empower a committee of three persons, known as the Quota Commission, to fix production for each member of the coal industry for a 6-month period beginning April 1, 1935. This commission was given the right to establish its own rules and regulations and sought to work out an equitable system of prorating tonnage.

It was decided to base allotments on sales rather than on production, in the belief that this would be a fairer method since some companies produced beyond their capacity to sell, especially in 1934.

The total tonnage to be produced monthly was fixed by the Central Coal Office. Production was authorized at the rate of 2,220,000 tons a month or 26,640,000 tons on an annual basis.[4]

On the basis of this total the Quota Commission made a decision with respect to individual company quotas. Separate consideration was given the Southern Basin, where mining has been carried on as an industry for over 100 years, as a rural occupation for even longer, and where production has been relatively stationary since the turn of the century, and the northern coal field (Limbourg), which has been producing commercially for less than 20 years and where the mines are still in process of development. Approximately 80 percent of the tonnage was allocated to the south and 20 percent to the north. In this way the production of the Northern Basin was limited to the same level as was attained under the free competition of 1934, without

[4] This figure is somewhat less than the tonnage consumed in 1934, i. e., 27,987,000 tons (including imported coal sold)

regard to the greater capacity of its mines, the higher productivity of its workers, and the relatively greater importance of its reserves.

Quota for north.—In calculating quotas for the Northern Basin, where there are six operating companies, the commission computed the percent of total coal sold in 1934 for each of the six companies and applied the percentages to the total tonnage allocated to the region for the 6-month period for which it was fixing production.

Quota for south.—In the Southern Basin the number of mines that are increasing their sales is limited and many mines have for years had a steadily declining share of the market. Therefore the commission concluded that it was essential to establish quotas taking into account production in more than 1 recent year. A formula was adopted whereby sales in 1934 were given a weight of two-thirds and average sales in the 8 years 1926 to 1933, one-third. This method, it was believed, would minimize the chance of inequalities arising through undue weighting of sales in particularly active or dull periods. It was further stressed that the period 1926–33 was a good basis for calculating sales, as it included some years of prosperity when southern mines operated and sold at full capacity.

The Commission reasoned that in no case should quotas be fixed that manifestly exceeded the existing (1935) capacity of any company to produce. It was ruled that no allocation should be made that was more than 50 percent above the sales as of 1934. In this connection the commission found that there was only one company whose sales records for 1926–33 would have entitled it to a quota above the limit just stated, but the allowance was cut to the basis of 1934 sales plus 50 percent in accordance with the rules set forth. On the average, the quota based upon production in 1926–33 (with a weight of one-third) and 1934 (with a weight of two-thirds) yielded an allocation of 18 percent above the tonnage sold in 1934.

For companies that are still expanding in the Southern Basin the method of prorating tonnage was disadvantageous, in that the business of earlier years, when sales were less important than now, were given weight in the calculation. To offset this loss the Commission decided upon a correction. This correction was made possible by the fact that the total production allotment was somewhat greater than the total arrived at by adding together the individual allotments for companies, due to the fact of certain mines having ceased to produce, etc. After allowing the expanding mines a supplementary allotment there was still a small margin of tonnage to be allocated and adjustments were accordingly made to compensate companies for shut-downs, opening of new workings, or other peculiar losses.

Withdrawals from stocks.—According to the regulations established, producers were empowered to substitute tonnage withdrawn from stocks on hand for newly mined coal under their allotments.

The Quota Commission

THE Quota Commission was empowered to act with complete liberty in assigning quotas and establishing rules for carrying out its work. The membership of the commission was made up of three as follows: A. Gesche, chief justice of the Supreme Court of Appeal (*Cour de Cassation*); Adolf Breyre, director of the National Institute of Mines, and professor at the University of Liége; and Charles Demeure of the Ministry of Economic Affairs, and professor at the University of Louvain.

Economic Aspects of the System

IF THE allocation of tonnage had been approached from a primarily economic standpoint without regard to its social implications the Quota Commission would have made a settlement following an essentially different pattern. Under a highly rationalized plan of prorating production, the Northern Basin would have been given a quota in excess of the 20 percent of total actually fixed upon. It has a present annual capacity of 7,000,000 tons,[5] or 2,000,000 tons in excess of the allotment, a productivity rate of 0.994 ton per man per day as compared with 0.687 ton in the Southern Basin, and average seam thickness of 1.11 meters as against 0.69 meter and shallower and less dangerous mines of more modern lay-out than does the south

However, there were counterbalancing considerations of which the most important were of a social and financial nature. It is in the south of Belgium that the coal industry has been an important factor in the economic framework for many decades. In certain areas the mine has been the only place of employment, and it is essential that the industry be maintained unless the population is to be moved or other industrial pursuits introduced. On the financial side there is considerable investment in the southern mines and a potential 50-year coal supply.[5]

In contrast the Northern Basin is in an undeveloped region of the country toward the border of the Netherlands and Germany. This area is only sparsely settled, and in developing the mine properties it has been necessary to build villages and to import working forces. Labor in these mines has been recruited from outside Belgium to a large extent. Apparently there has been little inclination on the part of the Belgian working population, from the coal country or other regions, to migrate to the Limbourg mines. Thus if the quota of the northern mines were to be increased materially it would become necessary, at least in some workings, to add living quarters and bring in more labor, since a daily three-shift system of operation is already the rule.

[5] Estimate of Quota Commission.

The quota system of production control as introduced in Belgium was planned with a view to creating the least possible disturbance in the balance of the industry. At the same time it was sought to avoid wasteful overproduction, with the attendant evils of price cutting and the carrying of large stocks against possible future orders.

The Belgian industry is peculiarly well adapted to an undertaking of this kind, in that ownership is concentrated in a relatively small number of units. The official figures of the Administration of Mines show that in 1934 there were slightly over 200 coal mines in the entire country and the allocation of tonnage involved only 67 companies. As the prorating of tonnage is on a company and not a mine basis, management enjoys the right to the greatest freedom in deciding which of its mines shall produce. The drawback to such flexibility is that it may work hardship on employees attached to the least productive establishments. No information is as yet available on this point.

Finally, the fact that Belgium is a small country, with an excellent communication system, enabling all units of the industry to keep in close touch with each other, and with a group of coal operators who are accustomed by long usage to cooperative action, makes it a logical area for initiating a planned coal economy.

HEALTH AND INDUSTRIAL HYGIENE

Disabling Sickness Among Industrial Employees in 1934[1]

THE frequency of disabling sickness among male industrial employees, who are members of sick-benefit associations reporting to the United States Public Health Service was lower in 1934 than in the preceding year, when the lowest rate since 1921 was recorded. The incidence rate for new cases of sickness and nonindustrial accidents causing absence from work for more than 1 week among the group of 174,643 workers in 37 establishments was 3 percent below the rates for 1933, 21 percent lower than in 1932, 32 percent lower than in 1929, and 14 percent below the rate for 1921. These figures cover the same industrial establishments for the different years with the exception of the rate for 1921 (the year in which the collection of these statistics was started) which included the employees of all establishments reporting at that time. The increased industrial activity since 1932, it appears, therefore, has not been accompanied by any increase in the rate of disabling illness lasting 8 days or longer among the male employees of these companies.

A reduction in the rate was found to have occurred for both respiratory and nonrespiratory diseases, the rate of 24.5 cases of respiratory diseases per 1,000 men being 14 percent lower than the previous minimum registered in 1933, and a new low was also recorded for nonrespiratory diseases.

The following table shows the frequency of specified causes of disability among a group of male industrial workers from 1929 to 1934 inclusive.

Frequency of Specified Causes of Disability Lasting 8 Consecutive Days or Longer Among Male Industrial Workers in Various Industries, by Years, 1929 to 1934

[A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec 31, 1934]

Year in which disability began	Sickness and nonindustrial injuries		Sickness		Respiratory diseases		Sickness exclusive of influenza		Nonrespiratory diseases		Average number of men, all reporting establishments
	A	B	A	B	A	B	A	B	A	B	
1929	112.4	110.6	99.9	98.1	47.8	46.8	73.9	71.9	52.1	51.3	194,451
1930	94.1	93.8	81.8	81.6	32.0	32.3	68.5	68.2	49.8	49.3	188,714
1931	94.6	93.2	82.2	81.1	34.9	34.8	63.3	62.1	47.3	46.3	171,694
1932	97.5	94.7	84.9	82.3	37.6	37.0	62.9	60.4	47.3	45.3	163,979
1933	82.3	76.8	71.0	66.2	28.6	25.6	55.7	53.0	42.4	40.6	152,203
1934	78.1	74.7	65.8	62.8	24.5	23.4	55.7	53.0	41.3	39.4	174,643
5 preceding years [1]	96.2	93.8	84.0	81.8	36.2	35.3	64.9	63.1	47.8	46.5	174,208

[1] 1929 to 1933, inclusive.

[1] Public Health Reports, Nov. 1, 1935: Disabling Illness Among Industrial Employees in 1934 as Compared with Earlier Years, by Dean K. Brundage.

There was a decrease in the prevalence of influenza, the rate per 1,000 men being reduced from 15.3 in 1933 to 10.1 in 1934; the previous low rate was 12.9 in 1921. The improvement in the respiratory rate in 1934 was due entirely to the reduction in the number of cases of influenza, as there was a slight increase in the rates for all other respiratory diseases except tuberculosis which showed no change. However, the rates in 1934 were below the average rate for the preceding 5 years for bronchitis, diseases of the pharynx and tonsils, pneumonia (all forms), and the "other" respiratory diseases.

The report states that, "the decrease in the frequency of new cases of respiratory tuberculosis during the past 13 years has been little short of spectacular." The incidence rate in 1921 and 1922 was 1.9 cases per 1,000 men per year while in 1933 and 1934 the rate was 0.8, a decrease of 58 percent. Mortality rates for pulmonary tuberculosis show a similar decrease, a reduction in the death rate of almost 50 percent having taken place among the millions of industrial policyholders of the Metropolitan Life Insurance Co. between 1922 and 1934. There has also been a decided decrease in the frequency rate of all forms of pneumonia in recent years. The average incidence rate from 1921 to 1929, shown in the present study, was 3.3 cases per 1,000 whereas during the 5-year period, 1930 to 1934, the average rate was only 2.1, a decrease of 36 percent. The lowest rate reached during the 14 years under review was 1.8 in 1933.

The rate for digestive diseases in 1934 was 12.7 per 1,000 males. Although this was higher than in 1933 it was due principally to an increase in the frequency of appendicitis, and neither the digestive-disease rate nor the rate for appendicitis was abnormally high when measured by average rates over a series of years. From 1929 to 1934 the digestive-disease rate dropped about 15 percent while the frequency of appendicitis was about the same in 1934 as in 1929. The less serious digestive diseases included in the group of "diseases of the stomach except cancer" and those classified under "diarrhea and enteritis" accounted for the greater part of the reduction in the last 5 years, while the rates for the more serious diseases of the digestive system were approximately the same in 1933 and 1934 as in 1929 and 1930. The rate for hernia showed little change during the past 14 years.

Diseases other than of the respiratory and digestive systems showed a lower rate in 1934 than in any other year in the 6 years under review. There was a 5-percent reduction in the frequency of these diseases in 1934 as compared with 1933. The favorable showing in the past 2 years is considered especially noteworthy, as several of these diseases cause a large amount of time lost from work. The principal reductions were found in illness caused by acute and chronic rheumatism, diseases of the organs of locomotion, diseases of the skin, and

certain other disease groups of less importance numerically. The incidence rate for acute and chronic rheumatism, which was 4 in 1934, had dropped sharply since 1932 when it was 5.3. The report states that it is impossible to show at present to what extent this change might be due to the replacement of rheumatic by able-bodied workers. Acute and chronic nephritis showed definitely lower rates, while there was little change in diseases of the heart, genito-urinary system, and annexa except nephritis, neuralgia, neuritis, and sciatica, diseases of the ear and mastoid process, and cancer.

It is of interest to note that claims on account of neurasthenia decreased sharply in 1933 and 1934. In 1931, which was the depression peak for this disorder, the rate was 87 percent above the incidence for 1934. Other diseases of the nervous system, including the psychoses, cerebral hemorrhage, and thrombosis, increased from an average frequency rate for the years 1921 to 1928 of 0.9 case per 1,000 to a rate of 1.4 per 1,000 in the years 1933 and 1934.

The rate for nonindustrial accidents causing 8-day or longer disabilities was 9 percent higher in 1934 than in 1933 and 20 percent greater than the annual frequency in the 1921–28 period.

Sickness Frequency Among Women

THE frequency of sickness among female members of the sick-benefit associations was 58 percent higher than among males in the 5 years ending in 1933 and in 1934 the rate was 84 percent higher. The associations generally pay benefits only for ailments common to both sexes and in addition the age distribution of women is generally more favorable from a health standpoint than that of men, as comparatively few women are found in industry at ages above 45. However, the frequency of both respiratory and norespiratory diseases was much higher among the women in each year under review, although the trend of sickness frequency was quite similar to that among the males, with a reduction in 1933 and 1934 from the rates in preceding years. Certain kinds of illness common to both sexes occurred much more often among female workers, but a few occurred at a definitely lower rate than among the men. The latter included pneumonia, rheumatism, and diseases of the organs of locomotion.

Time Lost Because of Illness

THE data on industrial morbidity are for the most part confined to sickness frequency or incidence, because of the technical difficulties in computing the severity rates. These difficulties are caused by the differences in the length of benefit periods in the reporting associations, extension of the benefit period sometimes granted to individuals, and the generally more liberal policies of administration adopted by some associations. However, it was found possible to present data on the

average duration per case of disability and the average number of days of disability per person for 3 different benefit periods—13, 26, and 52 weeks—in a 12-month period.

The average duration of disability in associations having a benefit period of 13 weeks was 37 calendar days per male case and 35 per female case. In associations having a benefit period of 26 weeks the average duration was 46 days for males and 42 days for females; it was approximately the same in associations paying benefits for 52 weeks.

The loss of time per member in 1934, exclusive of cases causing disability for less than 1 week, for sickness and nonindustrial accidents was 2.6 calendar days for males and 4.7 for females in associations paying benefits for 13 weeks; 3.1 days for males and 5.1 days for females in associations paying benefits for 26 weeks; and 3.9 and 6.5 days, respectively, in associations paying benefits for 52 weeks. It is pointed out that when the benefit period is less than 52 weeks, it is obvious that the full record of disabilities lasting an entire year is not obtained. The diseases and conditions causing a large amount of time lost from work are nonindustrial accidents, influenza, appendicitis, rheumatism, and, among women, neurasthenia.

Work of Union Health Center [1]

THE organization of the Union Health Center in New York City by the International Ladies' Garment Workers' Union was an outgrowth of the establishment of the Joint Board of Sanitary Control following the strikes of 1909–10 and 1911 against the sweatshop conditions then prevailing in the industry. Various surveys by the Joint Board and a health survey made in 1913 by the United States Public Health Service revealed a need on the part of thousands of workers and their families for assistance in meeting the problems presented by sickness. It was realized by the leaders of the union that the problem was too great for the individual to contend with unaided and it was necessary, therefore, to make it a union problem. Individual members were unable to meet the costs of medical care involving the attendance of private physicians, and also they were untrained in the preventive measures which are now an important part of the services of the Health Center.

The purpose of the Union Health Center is to furnish adequate medical service to the members of the International Ladies' Garment Workers' Union and a large number of affiliated unions. About the time the Health Center was started in 1913, several local units of the

[1] The Union Health Center of the I. L. G. W. U., by Pauline M. Newman, New York, 275 Seventh Avenue, 1935; The Union Health Center—Twenty-first anniversary, New York, 1934.

I. L. G. W. U. inaugurated sick-benefit systems which necessitated the examination of members prior to their joining the union in order to know their health status, and also required certification of members who claimed sick benefit. For several years these were the main tasks of the center, but later it was decided to establish several clinics for general examinations and treatments, which were followed by clinics in the specialized branches of medicine. In 1919 a four-story building was purchased and equipped at an expense of $60,000, and in 1935, as the work of the clinics had grown until these quarters were inadequate, the location was changed to a whole floor in one of the office buildings near the garment center, which is twice the size of the old building.

Until 1928 the services of the organization were limited to the members of the New York locals of the International Ladies' Garment Workers' Union, but in that year were extended to members of about 30 additional labor organizations. Only those workers and union members who are unable to pay the ordinary fees of private medical practitioners are treated, but except during a few years of prosperity, it is said, the majority of the union membership may be classed in this category. A report issued in 1934 stated that the annual earnings of the majority of union members do not exceed $1,200, and in several trades, $600. In 1930, the medical and dental departments were given dispensary licenses by the State Board of Social Welfare, and since then the center has been open to the general public, although the union members constitute the overwhelming majority of the patients. There are 24 departments and clinics aside from the dental department.

The Union Health Center derives its income partly from the unions whose members use its facilities and partly from the patients. In 1933, the average professional cost per hour was $1.63 and the overhead $1.41, the total hourly cost being $3.04 as compared with an income of $2.84 per hour. The fees charged amount to $1 to $1.50 for general and special treatments, while charges for X-rays, laboratory work, and drugs are based on cost. An additional small charge is made to members of nonaffiliated unions. In 1933 the total income was $36,785 and the expenses $37,395. In the dental department, the income and expenses amounted to $57,615 and $60,813, respectively. During the first 10 months of 1935, the total number of examinations given in the medical center amounted to approximately 45,000.

The membership of the International Ladies' Garment Workers' Union has increased greatly since 1933, the number of members in New York City alone in the latter part of 1935 amounting to more than 100,000.

WORKMEN'S COMPENSATION

Report of United States Employees' Compensation Commission, 1934–35

United States and District of Columbia

THE Nineteenth Annual Report of the United States Employees' Compensation Commission [1] covers operations during the fiscal year ended June 30, 1935, under the four workmen's compensation laws administered by the Commission: United States Employees' Compensation Act, Longshoremen's and Harbor Workers' Compensation Act, District of Columbia Workmen's Compensation Act, and the act approved February 15, 1934, providing compensation for certain employees on Federal Emergency Work projects.

United States Employees

REPORTS were received during the calendar year 1934 of 34,125 injuries, as compared with 25,019 in 1933, an increase of 36.4 percent. Comparable figures for the first 10 months of 1935 show 28,103 injuries reported, or 3.1 percent less than the corresponding period of 1934 (29,002).

On December 31, 1934, compensation was being paid in 2,062 permanent or long-continued disability cases, of which 482 were classified as total and 1,580 as partial. In approximately 15 percent of these cases, compensation was being paid on account of injuries that occurred 15 or more years ago, and in more than half of the cases compensation had been paid for 8 years or longer. The estimated value of future installments of compensation payable in these cases is approximately $12,000,000.

Compensation in the total amount of $1,357,282 was paid during the year ended December 31, 1934, in the form of death benefits, to 4,450 dependents of 2,522 deceased employees. Awards were made in 188 new cases, and 106 cases were closed. The average monthly compensation award in fatal cases approved during the year, was $54.17.

There were 31,890 cases which were closed conditionally by the Commission during 1934, distributed according to reason for closing,

[1] Nineteenth Annual Report of the U. S. Employees' Compensation Commission, July 1, 1934, to June 30, 1935. Washington, 1936. 74 pp.

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as follows: Compensation paid, 8,274; period of disability covered by leave with pay, 4,456; no time lost, 12,699; duration of disability 3 days or less, 3,889; disapproved by the Commission, 2,244; miscellaneous, 328. Medical expense was incurred in approximately 51 percent of all noncompensated cases, at a total cost of $144,471, aside from medical treatment provided through Government facilities.

The average duration of disability in all temporary-disability cases closed during 1934 was 22.2 days. The average duration in compensated cases was 37.5 days, and the average compensation award was $75.18.

An analysis of expenditures from the compensation fund in the 5 fiscal years, 1931–35, is presented in table 1.

Table 1.—Comparative Statement of Expenditures From Federal Employees' Compensation Fund, July 1, 1930, to June 30, 1935

Item	Fiscal years				
	1931	1932	1933	1934	1935
Injury compensation	$2,070,657.61	$2,080,030.41	$1,852,380	$1,612,570	$2,017,136
Lump-sum awards (injury)	3,402.16	14,337.74	1,693	1,919	447
Medical treatment and supplies	676,816.55	628,664.47	592,642	453,208	654,955
Transportation	41,128.30	36,228.39	40,048	32,402	35,599
Death compensation	1,359,256.44	1,412,298.15	1,441,745	1,296,929	1,494,019
Lump-sum awards (death)		964.17		270	5,229
Burial expenses	34,179.56	31,743.41	24,065	24,930	28,669
Embalming and transportation	3,606.36	4,341.07	2,422	2,177	3,384
Court costs	1,151.16	1,591.94	2,033	758	548
Total	4,190,198.14	4,210,199.75	[1] 3,957,028	[2] 3,425,163	4,239,986

[1] Savings on account of legislative reduction in compensation under act of Mar. 20, 1933, amounting to $62,154 impounded and returned to the Treasury, are not included in this statement.
[2] Compensation shown is net amount paid after deducting legislative reductions amounting to $456,544.

A study of the nonmechanical causes of injuries in Federal cases, including 1,419 fatal and 104,175 nonfatal cases closed during the 7 years 1928–34, shows that 47.28 percent of these injuries were caused by falls of persons and handling objects, with an additional 9.06 percent due to falls of objects. The Commission believes that a properly directed safety program should be put into effect in all Federal establishments.

Civil Works Employees

THE Civil Works Administration, whose employees were entitled to limited compensation under the act approved February 15, 1934, employed at the peak of the program approximately 4,000,000 workmen. Cases of injury reported from these projects up to June 30, 1935, numbered 166,803, nearly all of which arose between December 1933 and March 1934. Of these, 771 were fatal and 166,032 nonfatal. Compensation benefits amounting to $3,608,243, expended up to June 30, 1935, included: Disability compensation, $1,398,832;

medical treatment, $2,018,223; death compensation, $112,678; and transportation of beneficiaries, burial expenses, and miscellaneous, $78,510.

Enrollees—Civilian Conservation Corps

THE Civilian Conservation Corps, whose enrollees are entitled to limited compensation under the act approved February 15, 1934, operated during the period covered by this report with an enrollment of close to 300,000. Owing to the provisions of this law, the Commission receives reports only of fatal cases and of nonfatal cases in which disability lasts 15 days or longer or in which the injury may be expected to cause some permanent disability.

The records of the Commission show that on September 30, 1935, reports had been received in 19,186 cases, of which 1,828 were fatal and 17,358 nonfatal. The average cost per case of compensation benefits awarded in all fatal cases in which there were dependents entitled to compensation was $1,473. The average compensation award to 474 dependent parents of deceased enrollees was $7.73 per month.

Longshoremen and Harbor Workers

REPORTS were received during the fiscal year ended June 30, 1935, of 140 fatal and 26,188 nonfatal injuries, as compared with 142 fatal and 29,705 nonfatal injuries reported in 1933–34, a decrease of 11.79 percent.

The number of cases closed during the year consisted of 100 fatal and 26,985 nonfatal injuries. In 21 of the fatal cases there were no dependents, and 55 cases did not come within the scope of the law. In 13,916 of the nonfatal cases, no time loss was involved, in 3,119 cases the duration of the disability did not exceed 7 days, and 840 cases were outside the scope of the law.

Total compensation, paid and estimated to be paid in 65 fatal cases approved during the fiscal year 1935, amounted to $323,384, including payments made for disability preceding death, burial expenses, and payments made in no-dependency cases. Death compensation in 50 new fatal cases, estimated at an aggregate of $296,783, was awarded or commenced without an award, with 132 dependents receiving compensation. The total compensation paid in nonfatal cases closed during the year was $1,453,787, not including $6,766 paid for serious facial disfigurements in 32 cases.

Private Employees in District of Columbia

DURING the fiscal year ended June 30, 1935, reports were received of 64 fatal and 21,185 nonfatal injuries, to workers in private employments in the District of Columbia, as compared with 43 fatal and 20,157 nonfatal injuries reported in 1933–34, an increase of 5.2 percent.

The number of cases closed during the year consisted of 33 fatal and 21,967 nonfatal injuries. In 3 of the fatal cases there were no dependents, and in 10 others the injury did not come within the law. In 13,804 of the nonfatal cases no time was lost, in 3,645 cases the duration of disability was 7 days or less, and 384 cases were outside the scope of the law.

The estimated cost of 29 fatal cases approved during the year was $184,718. Total compensation, paid in 3,166 temporary-disability and 160 permanent-disability cases closed, was $384,145. In 3,511 cases the period of disability was less than 8 days. Of the 29 fatal cases closed there were 3 cases in which there was no person entitled to compensation. In the other cases, the average weekly payment to widows was $10.76, to dependent children under 18, $3.04, and to mothers, $9.38.

The total amount paid in compensation in all nonfatal cases closed prior to July 1, 1935, was $2,422,755, with an additional amount of $21,199 awarded for serious facial disfigurement. The total cost of benefits paid and estimated to be paid in 205 fatal cases approved prior to July 1, 1935, was $1,160,249.

A distribution by industry groups of 1934–35 injuries causing loss of time, and compensation costs, is shown in table 2, together with totals for the fiscal years, 1929–35.

Table 2.—Number and Compensation Costs of Lost-Time Injuries to Private Employees in the District of Columbia, by Extent of Disability and by Industry Group, 1934–35

Industry group	Fatal cases		Nonfatal cases				
			Permanent partial disability		Temporary total disability		
	Number	Estimated costs	Number	Amount of compensation	Total number	Number compensated	Amount of compensation
Clerical and personal service	2	$8,709	30	$23,331	1,402	622	$26,708
Construction	9	60,148	45	66,997	1,450	753	68,587
Manufacturing	1	7,500	30	27,480	660	306	25,383
Trade	7	46,200	41	49,336	2,325	1,044	59,814
Transportation and public utilities	10	62,161	14	13,918	840	441	22,591
Total, 1934–35	29	184,718	160	181,062	6,677	3,166	203,083
1933–34	34	184,407	208	221,752	6,384	3,239	214,291
1932–33	18	109,786	190	212,942	6,509	3,279	222,732
1931–32	37	209,804	166	166,081	7,609	3,623	227,529
1930–31	45	227,633	129	129,551	7,303	3,390	210,320
1929–30	19	103,528	129	71,044	8,313	3,781	227,199
1928–29	23	140,373	42	13,411	6,270	2,696	121,758
Total 1928–35	205	1,160,249	1,024	995,843	49,065	23,174	1,426,912
Active and pending cases	60	99,423	129	374,003	1,155	997	339,942
Grand total	265	1,259,672	1,153	1,369,846	50,220	24,171	1,766,854

HOUSING CONDITIONS

New Series of Statistics on Construction Costs of Small Houses

COSTS of building the same type of house in 27 cities vary from 18.0 cents a cubic foot in Columbia, S. C., to 26.8 cents a cubic foot in Providence, R. I., according to the findings of the Federal Home Loan Bank Board.[1] In publishing the actual costs of building the Board has taken the first action looking toward the development of indexes of small-house construction. The figures first made available are for 27 cities in 4 of the 12 Federal Home Loan Bank districts and it is expected to extend the coverage to approximately 40 additional cities in the 8 remaining districts. Information has been obtained as to the exact cost of materials and labor necessary to build a specified typical house. The Board believes that accurate information on the trends in costs is necessary to development of a national housing policy. Without such knowledge there is no way of ascertaining what proportion of families may be expected to provide their own dwellings. In the report here reviewed attention is drawn to the wide differences in costs between cities in the same State and caution is urged in the use of initial figures until the reporting system is perfected and possible errors eliminated. It is expected that when indexes have been collected for a period of years the use of improved materials and construction methods will be reflected in the total cost figures.

Total Costs and Cubic-Foot Costs of Building the Same Typical House in 27 Cities in January 1936

[Source: Federal Home Loan Bank Board]

Federal Home Loan Bank district, State, and city	Total cost	Cost per cubic foot
No. 1—Boston		
Connecticut: Hartford	$5,846	$0.244
Maine: Portland	4,813	.200
Massachusetts:		
Boston	5,861	.244
Springfield	5,963	.248
New Hampshire: Manchester	5,380	.224
Rhode Island: Providence	6,442	.268
Vermont: Rutland	5,507	.229
District average	5,696	.237
No. 4—Winston-Salem		
Alabama:		
Birmingham	5,456	.227
Montgomery	4,359	.181
District of Columbia: Washington	4,977	.207
Florida:		
Pensacola	5,095	.212
West Palm Beach	5,911	.246
Georgia: Atlanta	5,367	.223
Maryland:		
Baltimore	5,028	.209
Cumberland	6,033	.251
North Carolina:		
Asheville	$4,960	$0.206
Raleigh	5,056	.210
South Carolina: Columbia	4,337	.180
Virginia:		
Richmond	5,046	.210
Roanoke	4,508	.187
District average	5,087	.211
No. 7—Chicago		
Illinois:		
Chicago	6,361	.265
Springfield	6,202	.258
Wisconsin: Oshkosh	5,703	.237
District average	6,088	.253
No. 10—Topeka		
Colorado: Colorado Springs	5,972	.249
Kansas: Wichita	5,386	.224
Nebraska: Omaha	5,487	.228
Oklahoma: Oklahoma City	5,756	.239
District average	5,650	.235

[1] From Federal Home Loan Bank Review, January 1936, pp. 111-115: Indexes of Small-House-Building Costs Developed by the Federal Home Loan Bank Board.

Total costs per house amounting to less than $5,000 are shown for one city in district 1 (Portland) and five cities in district 4 (Montgomery, Washington, Asheville, Columbia, and Roanoke). An additional four cities report costs above $6,000, of which one is in district 1 (Providence), one in district 4 (Cumberland), and two in district 7 (Chicago and Springfield, Ill.). In the remaining 17 cities the cost reported was from $5,000 to $6,000.

Collection of cost data on house building is being carried on through the Reconditioning Division of the Home Owners' Loan Corporation. A trained staff, including architects, builders, and engineers, experienced in house-building problems, is in charge of the work, with a field personnel attached to regional, State, and district offices.

Specifications of the standard house are sent every 3 months to all those reporting. This standard house is a detached dwelling having a volume of 24,000 cubic feet, and with living room, lavatory, dining room, and kitchen on the first floor; three bedrooms and bath on the second floor; open attic, which could be finished into one or two rooms; and a one-room cellar containing heating and laundry facilities. The exterior finish is wide-board siding with brick and stucco. The one-car garage is attached to the house. It is assumed that the house plot is level and that no unusual soil conditions are present that would add to costs. Structural standards such as would meet municipal building codes are specified and the reports take into account commonly used materials and methods. Reports are not based on unusual materials or prefabricated walls, etc., but it is provided that should such items come into common use they would be included in the specifications. The house described might be placed in the $6,000 class, the Board states.

The field worker, in addition to securing material costs, reports on prevailing labor costs as reflected in hourly wage rates. "The number of labor hours required to build into this house each quantity of the items contained on the master materials list has been fixed on the basis of estimates which are known to be correct within narrow limits," the report states.

To the labor and materal cost is added a fixed amount to cover overhead expenses, such as public liability and workmen's compensation insurance and a 10 percent profit item. The estimate does not include planting, gas range and water heater, refrigerator, insect screens, shades, wall decoration, lighting fixtures, or land.

The Board seeks to secure accuracy in the reports by requesting prices on the same list of materials and having the work done by the same personnel every 3 months. It must not be assumed that the cost of any 6-room house with bath constructed in a given city would be the same as that reported. Any change in house plan would affect the price. The cost figures do, however, supply an exact record of the trend in house-building costs in each city.

Third National Public Housing Conference

INCREASED appropriations by Congress for slum clearance and low-rent housing, establishment of a permanent Federal housing agency, adoption of legislation by the States, and creation of local housing authorities in all American cities, were urged as objectives by the third National Public Housing Conference at sessions held in Washington, January 24–26, 1936. The conference favored early enactment of Federal housing legislation in a resolution which at the same time pointed out the desirability of a continuance of the existing policy of separating agencies dealing with public and with private housing. It was believed that the expansion of Government housing would not interfere with the normal activities of the construction industry, as the Government would be providing dwellings for those families with the lowest incomes, who could not afford decent housing without a subsidy. At round-table discussions held in the course of the conference the subjects under discussion included land cost, value and acquisition by local housing authorities, methods of financing, and production problems and policies. The National Public Housing Conference, which was the sponsoring agency, is a private organization working in the interest of low-cost housing. Its membership includes individuals and groups. The session recently held was the third of a series of annual meetings held at Washington by this body to publicize the need for, and enlist support of a movement for, low-cost dwellings.

In the discussion on securing land for public housing it was brought out that unless acquisition is possible at reasonable prices there is little hope of securing the objectives sought. Acquisition by purchase was viewed as less expensive than by the power of eminent domain. In cases where condemnation becomes necessary, however, it was stated that there is a need for working out some scientific formula of arriving at a fair price. To fix value in relation to assessment does not meet the requirements, the earning value of land having borne little relation to the assessment in recent years. It was stated that prices of land in the United States are based upon intended use and anticipation of a more valuable use. Overemphasis has been placed upon the future use and it is essential that standards of value be realistic.

Senator Wagner, in his address to the conference, stressed the fact that the benefits of a large-scale housing program would be twofold, in that while supplying adequate housing it would offer the most fertile field for reemployment. Reemployment thus accomplished would not be relief or made work. Every house built would serve a useful and permanent purpose. Lack of proper housing, he stated, affects 15 million families, and is felt throughout the Nation and not alone in city centers. Good housing and employment at decent pay are equally necessary if the slum and its companions, sickness, delinquency, and crime, are to be eradicated.

EDUCATION AND VOCATIONAL GUIDANCE

Vocational Training in Industrial Plants[1]

AFTER 2 days' consideration of various phases of the problems arising from the use of Federal funds in connection with vocational training in industrial plants (commonly referred to as "plant training"), a special advisory committee on February 1, 1936, recommended to the United States Commissioner of Education the adoption of a set of special standards and safeguards to cover this type of program. The Commissioner accepted the recommendations and announced that he would place them in effect at once as official policies. He also continued the advisory committee to serve indefinitely in connection with various problems of trade and industrial education as they may arise in the future.

The advisory committee, appointed at the request of the American Federation of Labor, is composed of the following: Representatives of labor, John P. Frey, Washington, D. C., George L. Googe, Atlanta, Ga., and Emil Rieve, Philadelphia, Pa.; representatives of employers, John E. Edgerton, Lebanon, Tenn., Max Mayer, New York, N. Y., and John H. Zink, Baltimore, Md.; and representatives of State administrators of vocational education, R. C. Small, Boston, Mass., L. A. Wilson, Albany, N. Y., and B. H. Van Oot, Richmond, Va.

The report, and the standards recommended by the committee as to the "conditions under which a public-school system may or may not be justified in establishing training programs within a private industrial plant during the working day at public expense for which Federal reimbursement may be granted" are given in part below:

Recommended Standards and Safeguards

The use of Federal funds is justified—

When the school system is enabled to provide training in the public interest and that of those being trained, which it could not otherwise provide for want of the equipment and supplies available in the plant, providing the following requirements are met:

1. The program must be under public supervision or control, as evidenced by:

(a) The fact that the local school officials have furnished satisfactory proof to the State officials that—

[1] U. S. Department of the Interior. Office of Education. Press release, Feb. 7, 1936: Joint Statement by Secretary of Labor, Frances Perkins, and Commissioner of Education, J. W. Studebaker. Washington, 1936.

(1) The training is organized and maintained in response to public need.

(2) The interest of the persons enrolled in the training program is the chief consideration.

(3) The program is generally recognized as a part of the public-school work of that community.

(4) The determination of matters such as the selection, qualifications, and salaries of teachers; content and length of courses; admission of students; supervision of instruction, and all other details of the training program are vested in officially designated school officials who recognize and admit their responsibility.

(b) The fact that the teachers engaged in training in the industrial plant are being paid by the same procedure and through the same sources as such teachers would be paid if teaching in public-school buildings.

2. There must be a definitely organized plan of instruction which shall include the technical knowledge and related industrial information, based on the standard practices of the trade or occupation, to insure adequate knowledge and mastery of the machines or operations, and orientation of the worker.

3. The program must meet all of the remaining requirements of the State plan, as attested by a sworn statement from an administrative official of the school organization, to the effect that all conditions set up in the State plan have been met.

4. Where plant employees, such as foremen, mechanics or skilled workers, are used as instructors, there must be a definite division of duties between instruction and plant activities, by definite time periods.

5. Persons are to be paid as instructors only in case they are working with a group of persons who are in a recognized learning status and for whom a regularly organized plan of instruction, as defined in paragraph 2 preceding, is given.

6. A full statement of each instructor's qualifications must be kept on file in the State office, as evidence that such teacher meets the requirements of the State plan.

7. Evidence should be on file in the State office to show that the work has been adequately supervised.

The use of Federal funds is not justified—

When the conditions set up in section A, preceding, cannot be met. In addition, Federal funds should not be used in connection with training programs possessing one or more of the following characteristics.

1. Where the training is for the purpose of the initial breaking in of operatives in newly located industries, no matter whether the demand for training the new workers arises from plant migration or relocations, labor turn-over or replacements.

2. Where training is confined to manipulative operations and processes, with no provision for teaching the technical knowledge and related industrial information, based on the standard practices of the trade or occupation, to insure adequate knowledge and mastery of the machines or operations, and orientation of the worker.

3. Where training is confined to a single operation, to develop high production speed, extended over the period of time necessary to bring the operative to full piece-rate ability.

4. Where plant foremen, mechanics, or skilled workers are paid from public funds for giving casual instruction on the job incidental to the regular run of production.

5. Where a disproportionate amount of time is spent on manipulative training, in comparison with related technical subjects, in a standard production industry, where it cannot be justified by a check against the actual job requirements of the industry, any accepted time standards for training for such jobs, or legitimate training objectives.

6. Where the training period is far in excess of that customarily given by the industry itself for pay-roll jobs, where it cannot be justified by a check against the actual job requirements of the industry, any accepted time standards for training for such jobs, or legitimate training objectives.

7. Where the training is extended over long periods of time on regular production work, without pay or at reduced pay.

8. Where an investigation of the program itself discloses that the objectives and the operation are such as to result in subsidizing industrial production, rather than in providing training for the workers' benefit.

9. Where those to receive the training are required to sign an agreement which, in effect, seeks to enable an employer to evade or violate some State or Federal law.

Findings of Study

THE deliberations of the committee which resulted in the endorsement of the special standards and safeguards were based upon consideration of a report of a field survey of various plant-training programs. Recognizing the vital importance of safeguarding labor standards in vocational education programs receiving grants-in-aid from Federal funds, the Commissioner of Education invited the United States Department of Labor in the spring of 1935 to join with the Office of Education in studying training programs conducted under public-school auspices which were preparing persons for employment in specific plants and about which complaints had been received. The report of the survey was prepared as a guide for administrative officials, to be utilized by the Commissioner of Education, as a basis for the development of policies which would afford additional safeguards indicated by the inquiry to be necessary.

The survey, made in March and April 1935, was prompted by complaints in regard to labor standards of plant-training programs conducted under public-school auspices and partly reimbursed, or applying for reimbursement, from Federal funds. Thirteen such programs, as to which specific complaints had been made, were studied. These programs, seven in progress at the time the survey was made and six which had been completed before the time of the study, were located in four States as follows: Mississippi, Pennsylvania, Tennessee, and Virginia.

In the course of the study, State and local public-school officials, trade teachers, plant managers, N. R. A. compliance officers, managers of reemployment offices, representatives of the cotton-garment code authority, and representatives of organized labor were interviewed.

The difficulties found to prevail in some of the places, at the time the survey was made and as reported to the investigators were summarized in the report as follows:

1. The information secured in this survey indicates that the cotton-garment, rayon, and silk industries are migrating. Cotton-garment factories are moving into Mississippi, the least industrialized of the Southern States.

2. Agencies stimulating migration are: Chambers of commerce—to improve business and relieve unemployment; power companies—to secure clients for sale of power; industrial agents of railroads—to secure transportation orders; and owners of unoccupied factory buildings—to secure return on investment.

3. Industries are seeking new locations because of labor difficulties, disadvantages of prison operation since passage of Cooper-Hawes bill, expansion of program of production, and desire for abundant supply of cheap labor.

4. Inducements offered by communities are: Tax exemption for 5 years, factory buildings secured by gifts, city bonds, and city funds, contribution toward pay roll for limited period of adjustment, and abundant supply of workers with high-school education trained in skills and process required for employment in industry, at little or no instructional expense to manufacturers.

5. Workers were trained for the new industries in programs conducted under public supervision and control. Application for reimbursement from the State and Federal funds had been made for the 7 plant-training programs in operation at the time of the survey; State and Federal funds had been used to reimburse 5 of the 6 programs completed prior to the survey. The program which was not reimbursed was organized with the advice of State and local public-school officials.

6. Practices in 12 plant-training programs reimbursed or applying for reimbursement.

In production under N. R. A. codes:

Workers in 3 of the 10 programs, in operation during the N. R. A., were trained on production without pay or less than code wages from 6 to 12 weeks, then transferred to pay rolls at learners' wages.

In 3 of the 10 programs in progress during the N. R. A. goods produced without payment of code wages were sold on the open market. In another 3 of the 10 programs in progress during the N. R. A. it was reported that goods had been or were expected to be exported to foreign markets with the claim that this removed them from the regular channels of trade.

In instruction:

Instruction in 10 programs consisted of the repetitious performance of a single operation for the purpose of securing speed in production.

In five places persons employed as instructors served as foremen on production, as mechanics, and as operatives.

Quarters in which to train workers for particular plants were rented through the public school in nine instances, and supplied by the firms in three cases.

Four plants for which training was given advanced materials on which workers were trained, with the expectation of being repaid when the product was sold, and the schools were responsible for marketing the mass product of the training programs.

The lack of comprehension of the differences between vocational education and speeding up of production resulted in programs which disregarded the development of workers.

In view of the findings of the survey the Office of Education took steps to see that the local programs which were found not to be in conformity with Federal and State policies were modified to meet accepted and approved standards for vocational schools, or that the States concerned gave assurance that Federal funds would not be used in reimbursement for the work.

The report was limited to conditions in places which were selected on the basis of complaints received and not as being representative of trade preparatory programs in general, hence the findings should not be construed as reflecting upon the general character of such programs and the good work which is being done.

An examination of the annual report of the 48 States, Hawaii, and Puerto Rico, for the year ended June 30, 1935, results in factual data as follows:

Number of part-time courses conducted in industrial plants (sometimes designated as "plant training")	66
Number of States in which classes were conducted	11
Enrollment in these classes	5,071
Total enrollment in all Federally-aided trade and industrial schools and classes, 48 States, Hawaii and Puerto Rico	504,865
Total Federal funds used by the States for part-time trade extension classes in industrial plants (sometimes designated as "plant training")	$65,000
Total Federal funds expended by the 48 States, Hawaii, and Puerto Rico for trade and industrial education	$3,291,901

A list of States having part-time trade classes, conducted during the working day, held in industrial plants (sometimes designated as "plant training"), for which Federal aid was approved during the fiscal year 1935 is given below:

	Number of schools or programs	*Enrollment*
California	1	100
Connecticut	1	40
Maine	1	42
Mississippi	3	816
North Carolina	1	12
Ohio	44	2,064
Pennsylvania	5	1,139
Tennessee	3	209
Virginia	5	546
Washington	1	91
West Virginia	1	12
Total	66	5,071

Vocational education programs are organized under public supervision and control, primarily for the benefit of the workers enrolled. While general safeguards against the misuse of Federal funds have been provided in the Federal act, in the administrative policies of the Federal Office of Education, in the State plans, and in the administrative policies followed in the States, the specific safeguards endorsed by the advisory committee were deemed necessary to protect adequately the use of Federal funds in this very special type of problem.

MINIMUM WAGE

Minimum-Wage Legislation in the United States, as of January 1, 1936

MINIMUM-wage laws have been enacted in 16 States. Prior to 1933 such laws existed in only 9 States.[1] During the legislative year of 1933, seven States[2] were added to the list which had previously enacted laws providing for the payment of a minimum wage to women and minors. While Massachusetts enacted a minimum-wage law as early as 1912, enforceable merely by public opinion, the legislature in 1934 repealed the original act and substituted a new one based on the so-called standard law. The minimum-wage law adopted by Illinois in 1933 originally provided for a limited period of operation, but in 1935 legislation was passed making the act permanent. North Dakota also acted upon this subject in 1935, and transferred the duties of enforcement of the State minimum-wage law from the workmen's compensation bureau to the department of agriculture and labor. All of the minimum-wage laws, with the exception of the new Massachusetts act, have been published in full in various publications of the United States Bureau of Labor Statistics.[3]

The States of Nebraska, Texas, and Utah early enacted laws on this subject, but the laws were later repealed.[4] In Nebraska the only appropriation made in connection with the minimum-wage law was the initial appropriation of $500 which was later placed in the sinking fund, as no action was taken under the law. After 6 years of inoperative existence the law was repealed. As the law was never enforced, its failure and repeal seem to have been the result of lack of proper administration rather than a failure of the law itself. In Texas the law passed in 1919 was repealed in 1921, and at the same time a new bill was passed relating to minimum wages for women and minors; it was, however, vetoed by the Governor. In 1929 the

[1] California, Colorado, Massachusetts, Minnesota, North Dakota, Oregon, South Dakota, Washington, and Wisconsin.

[2] Connecticut, Illinois, New Hampshire, New Jersey, New York, Ohio, and Utah.

[3] Laws of New Hampshire, New Jersey, New York, and Utah in Monthly Labor Review, June 1933 (pp. 1259–1276); Connecticut and Ohio, Monthly Labor Review, July 1933 (pp. 57–65); Illinois, Monthly Labor Review, August 1933 (p. 306); California, Colorado, Minnesota, North Dakota, Oregon, South Dakota, Washington, and Wisconsin, Bulletin No. 370; and see also Wisconsin, Bulletin No. 403 (p. 52).

[4] Nebraska, ch. 190, Acts of 1919; Texas, ch. 118, Acts of 1921; Utah, ch. 9, Acts of 1929.

Legislature of Utah repealed a law on this subject which had been enacted in 1913. A second law requiring the payment of a minimum wage to women and minors was enacted in Utah during 1933, as noted above.

Court Action on Minimum-Wage Legislation

THE constitutionality of minimum-wage legislation has been attacked in several cases before the United States Supreme Court as well as before State courts. The first case to reach the United States Supreme Court was that of *Stettler* v. *O'Hara* (243 U. S. 629)[5] which arose under the minimum-wage law enacted by the State of Oregon. The State supreme court found no violation of either the Federal or the State Constitution in the enactment and enforcement of the minimum-wage law. In declaring the law valid the Oregon court quoted from a report of the commission on minimum-wage boards, appointed by the Massachusetts Legislature to investigate conditions, as follows:

> Women in general are working because of dire necessity and in most cases the combined income of the family is not more than adequate to meet the family's cost of living. In these cases it is not optional with the women to decline low-paid employment. Every dollar added to the family income is needed to lighten the burden which the rest are carrying * * *. Wherever the wages of such a woman are less than the cost of living and the reasonable provision for maintaining the worker in health, the industry employing her is in receipt of the working energy of a human being at less than its cost, and to that extent is parasitic. The balance must be made up in some way. It is generally paid by the industry employing the father. It is sometimes paid in part by future inefficiency of the worker herself, and by her children, and perhaps in part ultimately by charity and the State * * *. If an industry is permanently dependent for its existence on underpaid labor, its value to the Commonwealth is questionable.

The court also said that "every argument put forward to sustain the maximum-hours law, or upon which it was established, applies equally in favor of the constitutionality of the minimum-wage law as also within the police power of the State and as a regulation tending to guard the public morals and the public health * * *."

This decision was appealed to the United States Supreme Court and in 1917 that Court affirmed the decision, the Court being equally divided, four justices in favor of the constitutionality, four justices against, and one taking no part in the decision.

In 1923 the United States Supreme Court had occasion to render an opinion on the minimum-wage law adopted by Congress for the District of Columbia.[6] The law was declared unconstitutional on the ground that it denied the freedom of contract and resulted in deprivation of property without due process of law. This was a

[5] For State decision see 69 Oreg. 519; 70 Oreg. 261.

[6] *Adkins* v. *Children's Hospital*, 261 U. S. 525.

5–3 decision rendered over the vigorous protest of Mr. Chief Justice Taft, and was rather surprising when viewed in the light of prior decisions of the same Court. In earlier cases the Supreme Court had declared valid, without finding any violation of the "freedom of contract" or "due process," such "public health and welfare" laws as those limiting the hours of labor for women and minors. In one of the cases Mr. Justice Brewer had said: "The fact that both parties are of full age and competent to contract does not necessarily deprive the State of the power to interfere where the parties do not stand upon an equality or where the public health demands that one party to the contract shall be protected against himself." (*Holden* v. *Hardy*, 169 U. S. 366.) In the case of *Muller* v. *Oregon*, 208 U. S. 412, the Court said in regard to legislation enacted for the protection of women that such legislation was justified not only for the protection of the woman's own health but also for the well-being of the race.

Upon the authority of *Adkins* v. *Children's Hospital*, supra, a decision was rendered in 1925 declaring the Arizona law void (*Murphy* v. *Sardell*, 269 U. S. 530); and in 1927 the Arkansas law was also declared unconstitutional (*Donham* v. *West-Nelson Mfg. Co.*, 273 U. S. 657). Several State supreme courts, following the decision of the United States Supreme Court, thereupon declared the State minimum-wage laws unconstitutional. The Kansas law was voided in the decision of the State court in the case of *Topeka Laundry Co.* v. *Court of Industrial Relations* (119 Kans. 13); the Puerto Rican law was declared unconstitutional by the Puerto Rican Supreme Court in the case of *People* v. *Successors of Laurnaga & Co.* (32 P. R. Rep. 766). The Minnesota law has been declared constitutional in several decisions by the State supreme court;[7] however, the latest case, that of *Stevenson* v. *St. Clair* (161 Minn. 444), took into consideration the decision of the United States Supreme Court in the *Adkins case* but held that it did not affect the minimum-wage law as applied to minors, and therefore that phase of the law is still in force and effect.

The supreme courts of other States, on the other hand, have found the minimum-wage laws to be constitutional and a valid exercise of the police power. The North Dakota law was upheld in *Northwestern T. E. Co.* v. *Workmen's Compensation Bureau* (47 N. D. 397); the Washington minimum-wage law was declared constitutional in several decisions of the State supreme court.[8]

It is interesting to note at this time that cases are now pending in the Ohio and New York [9] courts which may determine the validity of the standard minimum-wage laws now in operation in five other States.

[7] See *Williams* v. *Evans*, 139 Minn. 32; *G. O. Miller Telegraph Co.* v. *Minimum Wage Commission*, 145 Minn. 262; *State* v. *Allyn*, 150 Minn. 123.

[8] See *Larsen* v. *Rice*, 100 Wash. 642; *Spokane Hotel Co.* v. *Younger*, 113 Wash. 359; *Sparks* v. *Moritz*, 141 Wash. 417.

[9] Act has been declared unconstitutional by New York Court of Appeals in the case of *Tipaldo* v. *Morehead*.

The minimum-wage laws of Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, New York, and Ohio are based upon the standard minimum-wage bill sponsored by the National Consumers' League. The standard bill does not attempt to regulate wages generally. Whenever a substantial number of women and minors in any occupation are receiving less than a subsistence wage the law provides that an investigation be made to determine whether the wages are "fairly and reasonably commensurate with the value of the service or class of service rendered." An unreasonable wage is defined as "less than the fair and reasonable value of the services rendered and less than sufficient to meet the minimum cost of living necessary for health."

In the laws, which follow the standard bill, it is evident that an effort has been made to overcome the objections raised in the *Adkins case*. During the depression it has become apparent that unfair wage standards not only undermine the health and well-being of the workers but threaten the stability of industry itself. As a protection, therefore, against unfair methods of competition by ruthless and unscrupulous competitors the States have again turned their attention towards minimum-wage laws, for now as never before is realized the close relationship between the payment of a minimum wage and the economic well-being of the race. The experience of the past few years should add much force and weight to the reasoning in the opinion in *Stettler* v. *O'Hara* holding that the enactment of such laws is a valid exercise of the police power and that they are not only a valid but a necessary means of protecting the public health, morals, and welfare.

The Utah minimum-wage law is similar to the California law. The State industrial commission is empowered to ascertain the wages paid, the hours, and conditions of labor in the various occupations.

Upon investigation, if it is determined that the wages paid "are inadequate to supply the cost of proper living", the law provides that the commission shall call a "wage board" into conference. After a public hearing, the commission is empowered to fix a minimum wage, a maximum number of hours, and the standard conditions of labor "demanded by the health and welfare of the women and minors engaged in any occupation." A mandatory order may be subsequently issued setting forth the minimum wage and the maximum hours.

Principal Provisions of Laws

THE principal provisions of the acts are summarized in the following table. For additional information on this subject, especially with reference to minimum-wage orders, see United States Women's Bureau Bulletin No. 137: Summary of State Hour Laws for Women and Minimum-Wage Rates.

Principal Provisions of Minimum-Wage Laws in Effect in 1935

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Calif.----	Deering's Gen. Laws 1931; act 3613.	Women; minors (females under 21, males under 18).	Women physically defective by age or otherwise may be granted special license, renewable every 6 months. Apprentices: Special wages set by commission during specified period of apprenticeship.	Occupations, trades, and industries in which women and minors are employed.	Industrial welfare commission of 5 members (1 a woman) appointed by governor for 4 years.	At discretion of commission. Investigation conducted by examining papers, books, witnesses, and by holding public hearings.	Commissioner convenes wage board composed of representatives of employers and employees in trade in question, with member of commission as chairman; after investigation the board reports to commission the minimum wage it deems necessary. After public hearing commissioner fixes minimum wage for the trade.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Amount must be adequate to supply necessary cost of proper living, and to maintain health and welfare of workers.
Colo.----	Comp. Laws 1921; secs. 4262-4283.	Women; minors (either sex under 18 years of age).	Women physically defective or crippled by age or otherwise or less efficient than those of ordinary ability may be granted special license, stating wage; number so licensed must not exceed one-tenth of total employed in establishments.	Any occupation (construed to include "any and every vocation, trade, pursuit, and industry").	Industrial commission of 3 members (not more than 1 each representing employees and employers), appointed by governor, with consent of senate, for 6 years.	At discretion of commission or at request of not less than 25 persons engaged in the occupation. Investigation conducted by examining books, papers, and witnesses, and by holding public hearings.	Commission may itself investigate and set minimum wage for an occupation, or it may establish wage board composed of member of commission and not more than 3 representatives each of employers concerned, of female employees, and of public. Representatives of employers and the employees to be elected by their respective groups: at least 1 member of every group to be a woman. Wage board investigates and reports to commission a minimum wage which commission may accept or reject.	----do----------	Wage must be adequate to supply necessary cost of living and to maintain health, and must be sufficient living wages for women and minors of ordinary ability.

Principal Provisions of Minimum-Wage Laws in Effect in 1935—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Conn.	Cumulative Supp. (1931, 1933) to Gen. Stat., 1930, ch. 131a.	Women; minors (either sex, under 21 years of age).	Women or minors (including learners or apprentices) with earning capacity impaired by age, physical or mental deficiency, or injury, may obtain special license authorizing wage lower than established minimum for fixed period.	Any sweatshop occupation (defined as industry, trade, business, or occupation paying unfair and oppressive wages, but not including domestic service in employer's home or labor on farm).	Commissioner of labor and director of minimum wage division which may be set up in department of labor.	At discretion of commissioner or director, or at request of 50 or more residents of State.	Commissioner, after conferring with director, appoints wage board composed of not more than 3 representatives each of employers and of employees concerned (to be selected as far as practicable from nominations by respective groups), and of public. After studying evidence and information in commissioner's possession, board must, within 60 days of its organization, submit report, including recommended minimum fair-wage standards for women and minors in occupation. The commissioner may accept or reject this report.	Noncompliance with mandatory order makes employer liable to fine or imprisonment or both. Each week, in any day of which an employee is paid less than rate set by order, constitutes separate offense as to each employee so paid. Employee may recover back wages and costs.	Wage must be sufficient to meet minimum cost of living necessary for health.
Ill.	Acts of 1933, p. 507 (as amended 1935, p. 840).	Women; minors (females under 18, males under 21 years of age).	——do——	Any industry, trade, or business, branch thereof, or class of work therein, in which women or minors are gainfully employed (not including domestic service in employer's home or labor on farm).	Department of labor, having director and assistant director appointed by governor with advice and consent of senate.	At discretion of department or at request of 50 or more residents of any county.	Director appoints wage board composed of not more than 2 representatives each of employers and of employees in the occupation (to be selected as far as practicable from nominations submitted by respective groups), and of 1 disinterested person representing public. The board investigates wage standards of women or minors in specified occupation, and recommends minimum wage which may be accepted or rejected.	Violation of mandatory order deemed misdemeanor and punished by fine or imprisonment or both. Each week, in any day of which order is not complied with, constitutes separate offense as to each employee concerned.	Wage must be fairly commensurate with value of service rendered, and sufficient to meet minimum cost of living necessary for health.
Mass.	Acts of 1934, ch. 308 (as	Women; minors, (either	Women or minors, (including learners or appren-	Any occupation (defined as industry, trade	Commissioner, department of labor	At discretion of commissioner on petition of 50 or	The commission (associate commissioners of the department of labor and industries) appoints	Payment of wages less than those set by mandatory	Wages must be fairly and reasonably commensu-

							may be accepted or rejected.			
Mass.....	Acts of 1934, ch. 308 (as amended 1935, ch. 267).	Women; minors, (either sex under 21 years).	Women or minors, (including learners or apprentices) with earning capacity impaired by age, physical or mental deficiency or injury, may be granted special license authorizing wage lower than established minimum for fixed period.	Any occupation (defined as industry, trade or business, or branch thereof, or class of work therein, in which women or minors are gainfully employed, but not including domestic service in employer's home or labor on farm).	Commissioner, department of labor and industries, or any of his authorized representatives.	At discretion of commissioner on petition of 50 or more residents of the Commonwealth.	The commission (associate commissioners of the department of labor and industries) appoints wage board, composed of not more than 3 representatives each of employers and employees in the occupation (to be selected so far as practicable from nominations by respective groups) and of public. Board investigates and recommends minimum wage which commission may accept or reject.	Payment of wages less than those set by mandatory order punished by fine or imprisonment or both. Each week in any day of which any order is not complied with constitutes a separate offense as to each employee so paid.	Wages must be fairly and reasonably commensurate with value of the service or class of service rendered.
Minn.....	Gen. Stats. 1923, sec. 4210-4232.	Women; minors (females under 18 years of age, males under 21 years of age).	Women physically defective may obtain license fixing wage lower than established minimum. Licensees not to exceed one-tenth of number employed in establishment.	Any occupation (defined as any business, industry, trade, or branch of a trade).	Industrial commission of 3 members, appointed by governor with advice and consent of senate, for 6 years.	At discretion of commission or at request of 100 persons engaged in the occupation. Investigation conducted by examining papers, books, witnesses, and by holding public hearings.	Commission may itself investigate and determine a minimum wage for occupation in question, or it may establish advisory board composed of not less than 3 or more than 10 representatives each of employers and of of employees in occupation and 1 or more representatives of public (but no more representatives of public than in either one of the other groups). At least ⅓ of board must be women and public group must contain at least 1 woman. After examination of books and witnesses board recommends minimum wage, which commission may accept or reject.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Amount must be adequate to supply living wages for women and minors of ordinary ability.

Principal Provisions of Minimum-Wage Laws in Effect in 1935—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
N. H.	Acts of 1933, ch. 87.	Women; minors (either sex, under 21 years of age).	Women or minors (including learners or apprentices) with earning capacity impaired by age, physical or mental deficiency, or injury, may be granted special license authorizing wage lower than established minimum for fixed period.	Any occupation (defined as industry, trade, or business, or branch thereof, but not including domestic service in employer's home or labor on farm).	Labor commissioner, appointed by governor with advice and consent of council, for 3 years.	At discretion of commissioner or on petition of 50 or more residents of State. Investigation conducted by examination of witnesses, books, records, and other relevant evidence.	Commissioner appoints wage board composed of not more than 3 representatives each of employers and employees in the occupation (to be selected as far as practicable from nominations by respective groups) and of public. Board investigates and recommends minimum wage which commissioner may accept or reject.	Noncompliance with mandatory order makes employer liable to fine or imprisonment or both. Each week, in any day of which an employee is paid less than rate set by order, constitutes separate offense as to each employee so paid. Employee may recover wages and costs.	Wage must be fairly and reasonably commensurate with value of service or class of service rendered.
N. J.	Acts of 1933, ch. 152.	do	do	Any occupation (defined as industry, trade, or business, or branch thereof, but not including domestic service in employer's home, labor on farm, or employment in a hotel).	Commissioner of labor, with director of minimum wage division and such deputy directors as commissioner deems advisable.	At discretion of commissioner or on petition of 50 or more residents of State.	do	Payment of wages less than those set by mandatory order deemed a misdemeanor and punished by fine or imprisonment or both. Each week, in any day of which an order is not complied with, constitutes a separate offense as to each employee so paid.	Do.
N. Y.	Supp. (1931–35) to Cahill's	Women; minors (either	Women or minors (including learners or apprentices)	Any occupation (defined as industry, trade,	Commissioner of labor, with director of mini-	At discretion of commissioner or on petition of 50	Commissioner appoints wage board composed of not more than 3 repre-	Payment of wages less than those set by	Wage must be fairly and reasonably com-

								Payment of wages less than those set by mandatory order deemed a misdemeanor and punished by fine or imprisonment or both. Each week in any day of which an order is not complied with constitutes a separate offense as to each employee so paid.	
N. Y.	Supp. (1931–35) to Cahill's Consol. L., 1930, ch. 32, art. 19.	Women; minors (either sex, under 21 years of age).	Women or minors (including learners or apprentices) with earning capacity impaired by age, physical or mental deficency, or injury, may be granted special license authorizing wage lower than established minimum for fixed period.	Any occupation (defined as industry, trade, or business, or branch thereof, or class of work therein, in which women or minors are gainfully employed, but not including domestic service in employer's home or labor on farm).	Commissioner of labor, with director of minimum wage division and such deputy directors as commissioner deems advisable.	At discretion of commissioner or on petition of 50 or more residents of State.	Commissioner appoints wage board composed of not more than 3 representatives each of employers and of employees in the occupation (to be selected as far as practicable from nominations by respective groups) and of public. Board investigates and recommends minimum wage which commissioner may accept or reject.		Wage must be fairly and reasonably commensurate with value of service or class of service rendered.
N. Dak.	Supp. (1913–25) to Comp. Laws 1913, secs. 396b1–396b16 (as amended 1935, ch. 162).	Women; minors (either sex, under 18 years of age).	Females physically defective by age or otherwise (or apprentices or learners in occupation usually requiring such) may be granted special license authorizing wage lower than established minimum.	Any occupation (defined as business, industry, trade, or branch thereof, but not including agricultural or domestic service).	Commissioner of agriculture and labor.	At discretion of commissioner. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings.	Commissioner organizes conference composed of not more than 3 representatives each of employers and of employees in the occupation in question and of public, and 1 or more commissioners. Conference investigates and recommends minimum wage, which bureau may accept or reject.	Refusal to comply with order of commissioner is unlawful, punishable by fine or imprisonment or both. Employee may recover back wages and costs.	Wage must be adequate to supply necessary cost of living and maintain woman workers in health. Reasonable wages for minor workers.
Ohio	Acts of 1933, p. 502.	Women; minors (either sex under 21 years of age).	Women or minors (including learners or apprentices) with earning capacity impaired by age, physical or mental deficiency, or injury, may be granted special license authorizing wage lower than established minimum for fixed period.	Any occupation (defined as industry, trade, or business, or branch thereof, or class of work therein, in which women or minors are gainfully employed, but not including domestic service in employer's home or labor on farm).	Director of industrial relations, with superintendent of minimum-wage division and such assistant superintendents as may be necessary.	At discretion of commissioner or on petition of 50 or more residents of State.	Commissioner appoints wage board composed of not more than 3 representatives each of employers and of employees in the occupation (to be selected as far as practicable from nominations by respective groups) and of public. Board investigates and recommends minimum wage, which commissioner may accept or reject.	Payment of wages less than those set by mandatory order deemed a misdemeanor and punished by fine or imprisonment or both. Each week in any day of which order is not complied with constitutes a separate offense as to each employee so paid.	Wage must be fairly and reasonably commensurate with value of service or class of service rendered.

Principal Provisions of Minimum-Wage Laws in Effect in 1935—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Oreg.	Code, 1930 secs. 49-301 to 49-324 (as amended 1931, ch. 394; 1933 (2d spec. sess.), ch. 88).	Women; minors (either sex under 18 years of age).	Women physically defective or crippled by age or otherwise may obtain license fixing wage lower than established minimum.	Any occupation (defined as any and every vocation, pursuit, trade, and industry).	State welfare commission of 3 members appointed by governor for 4 years.	At discretion of commission. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings.	Commission organizes conference composed of not more than 3 representatives each of employers and of employees in the occupation and of public, and 1 or more commissioners. Conference investigates and recommends minimum wage, which commission may may accept or reject.	Refusal to comply with law a misdemeanor and punishable by fine or imprisonment or both. Employee may recover back wages and costs.	Wage must be adequate to supply necessary cost of living and to maintain health.
S. Dak.	Comp. Laws 1929 secs. 10022A-10022E. (as amended 1931, ch. 173).	Women and girls over 14 years of age.	Women mentally or physically deficient or disabled may obtain permit authorizing wage lower than established minimum. Apprentices: Industrial commissioner must be notified of each apprentice and give permission for his employment.	Any factory, workshop, mechanical or mercantile establishment, laundry, hotel, restaurant, or packing house.	Industrial commissioner appointed by governor for 2 years.	----------	Minimum wage fixed by law.	----do----------	Wage must be amount which equals a living wage.
Utah	Acts of 1933, ch. 38.	Women; minors (either sex under 21 years of age, but commission not	Women physically defective by age or otherwise may be granted special license. License must be renewed every 6 months. Apprentices: Spe-	Occupations, trades, and industries in which women and minors are employed.	Industrial commission of 3 members, appointed by governor for 4 years.	At discretion of commission. Investigation conducted by examining papers, books, witnesses, and by holding public hearings.	Commission calls wage board composed of equal number of representatives of employers and employees in trade in question, with a representative of commission as chairman. Board investigates and reports to	Payment of less than fixed minimum wage or refusal to comply with provisions of law a misdemeanor. Employee	Wage must be adequate to supply to women and minors the cost of proper living, and to maintain the health and
		authorized to fix minimum	cial wages set by commission during specified period of appren-				commission, which fixes minimum wage after public hearing.	may recover back wages and costs.	welfare of such workers.

		authorized to fix minimum wages and maximum hours for males between 18 and 21).	cial wages set by commission during specified period of apprenticeship.				commission, which fixes minimum wage after public hearing.	may recover back wages and costs.	welfare of such workers.
Wash.[1]	Remington's Rev. Stats. 1931, secs. 7623–7641.	Women; minors (either sex under 18 years of age).	Women physically defective or crippled by age or otherwise (or apprentices in occupation usually requiring such) may secure license authorizing wage lower than legal minimum.	Occupations, trades, and industries.	Industrial welfare committee composed of director of labor and industries, appointed, by governor with consent of senate and holding office at his pleasure; supervisor of industrial insurance and supervisor of industrial relations, appointed by director of labor and industries; and supervisor of women in industry, appointed by supervisor of industrial relations with approval of director of labor and industries.	----do----	Commission organizes conference composed of equal number of representatives of employers and employees in occupation in question and 1 or more representatives of public (but no more representatives of public than in either one of the other groups), and a member of commission. Conference recommends minimum wage, which commission may accept or reject.	Payment of wages less than standard minimum or refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Amount must be a reasonable wage, not detrimental to health and morals and sufficient for decent maintenance of women.

[1] The law of Washington was declared unconstitutional, as far as adult women are concerned, in the superior court of the State on Nov. 9, 1934. (*Parish* v. *West Coast Hotel Co.*)

Principal Provisions of Minimum-Wage Laws in Effect in 1935—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Wis.....	Stat., 1931, secs. 104.01-104.125.	Women; minors.	Adult women unable to earn minimum may obtain license fixing lower wage. Employer may obtain license to pay adult females wage lower than established rate, if he establishes satisfactorily that he is unable to pay such wage. Minors unable to earn "a living wage" may obtain license fixing lower wage commensurate with their ability.	Every person in receipt of, or entitled to, any compensation for labor performed for any employer.	Industrial commission whose members are appointed by governor, with advice and consent of senate, for 6 years.	At discretion of commission or on verified complaint filed by any person.	Commission organizes advisory wage board, selected to represent fairly employers, employees, and public. Living wage determined by commission and advisory board shall be the legal minimum wage.	Payment of wages in violation of any order of commission deemed violation of law, unless it can be proved that the order was unreasonable. Every day an order is not complied with is a separate offense.	Amount must be a "living wage", i. e., sufficient to maintain employee under conditions consistent with his welfare. Wage must not be oppressive (defined as "lower than a reasonable and adequate compensation for services rendered").

LABOR ORGANIZATIONS

Labor Research Institute for Toronto Unions

LABOR is becoming increasingly aware of the value of research and fact finding. Labor organizations are not only making fuller and keener use of research data provided by governmental and private agencies but are to a limited extent creating their own research facilities. The American Federation of Labor and a number of the international unions maintain fact-finding machinery. The United Hatters are reported to have inaugurated a research department recently. These agencies undertake economic research along any lines that the organizations they serve may require. A research body specializing in industrial law and labor legislation is the latest development in the field. This is sponsored by the Toronto Trades and Labor Council, the first central labor union to undertake organized research work. The plan as announced by the Toronto Trades and Labor Council is outlined in the December 1935 issue of the Journal of Electrical Workers and Operators, official organ of the International Brotherhood of Electrical Workers.

The Labor Research Institute was established with the cooperation of members of the faculty in law of the University of Toronto, who, with the assistance of practicing lawyers, were found to be willing "to undertake the work of directing scientific legal industrial research." The plan, which has begun to function, is outlined thus by the Toronto Trades and Labor Council:

(1) A legal research committee will give their service free.

(2) The trade-unions will provide secretarial services and so on and hope to furnish financial assistance for one or more full-time research workers as the developments justify themselves to trade-unionists.

(3) The legal research committee will issue 10 monthly bulletins on problems in industrial and trade-union law. These bulletins will be regular. Additional copies of the bulletins may be obtained by trade-union members at a nominal cost.

(4) The legal research committee will be prepared to receive and discuss suggestions for legal research on any industrial problem sent in to them by locals affiliated with the institute and if the problem is of wide and general interest to trade-unions a special bulletin may be issued if necessary.

(5) Affiliated trade-unions will receive from the legal research committee confidential information of an objective nature explaining the meaning and implications of any labor legislation which may be introduced.

The development of the movement, as its sponsors view it, will provide Canadian trade-unionists with "an opportunity to approach their problems with knowledge and with scientific research behind them", which will enable them "to know the law, to understand their rights and to work at reform legislation."

Women in British Trade-Unions

WOMAN workers at the end of 1934 constituted 16 percent of the total membership of British trade-unions, and in the unions covering certain occupations they outnumber men four to one, according to an article in the January 1936 issue of Labour Research (London).[1]

The following table, reproduced from the article, shows the number and percent of woman workers who are organized in all industrial groups for which this information is available. Comparable data are not computable for all occupations in which women are employed, because industrial classifications differ from trade-union groupings and jurisdictions. The figures refer to 1931, the latest year for which census occupational statistics are available.

Number and Percent of Woman Trade-Unionists in Great Britain, by Industry Groups

Industry group	Woman trade-unionists	
	Number	Percent organized
Textile	289,351	37
Teaching	154,423	74
National and local government	68,138	----------
Tailoring and clothing	41,909	12
Boot and shoe	28,296	
Commerce and distribution	49,173	----------
Transport and general labor	40,128	----------
Paper, printing, etc	39,109	33
Pottery, glass, etc	11,034	17
Engineering and metal	5,791	2

An analysis by occupation of the textile industry, in which, in 1931, 542,000 males and 776,000 females were employed, shows the relative number of union men and women in certain branches. Women constitute 60 percent of the membership of unions in cotton textiles. One of these unions is the Amalgamated Weavers' Association, the membership of which is 83,000 women and 21,000 men. Another cotton-textile union, the Amalgamated Association of Card, Blowing,

[1] Labour Research (organ of Labour Research Department, 60 Doughty St., London, W. C. 1), January 1936: The Organization of Women.

and Ring Room Operatives, has 36,000 female members and 9,000 male members.

The membership of the National Union of Textile Workers consists of 19,837 women and 18,683 men. In the jute branch of the industry 9,000 women and 2,216 men are organized and the membership of the Power Loom Carpet Weavers' Association includes 2,500 women and 1,500 men.

On the other hand the membership of unions in the man-employing occupations such as overseer, warp-twister and dresser, and wool sorter is, of course, preponderantly male.

The extent of organization among women in the textile industry is not due alone to the fact that they are employed in large numbers, the article points out. Unionism has been traditionally followed by woman textile operatives in Great Britain since the early days of factory production. Organization goes back to the eighteenth century and in the spinners' strike of 1818 women drew strike pay on the same footing as the men. In 1876, women formed nearly half the membership of the cotton weavers' unions.

INDUSTRIAL DISPUTES

Trend of Strikes and Lockouts

PRELIMINARY information, available at the time this report went to press, indicated 106 strikes and lockouts beginning in January 1936 and involving 24,000 workers, as compared with 90 strikes and lockouts beginning in December 1935 and involving 15,000 workers. The January figures show an increase of approximately 18 percent in number of strikes as compared with the previous month but a decrease of approximately 25 percent as compared with January 1935.

An analysis of the January strikes and lockouts, based on detailed and verified information, will appear in the Monthly Labor Review for May 1936.

Strikes and Lockouts, January 1934 to January 1936 [1]

Month	Number of strikes and lockouts					Workers involved in strikes and lockouts—		Man-days idle during month
	Beginning—		In progress during month	Ended in month	In effect at end of month	Beginning in month	In progress during month	
	Prior to month	In month						
1934								
January	34	98	132	83	49	81,650	106,734	822,400
February	49	94	143	82	61	89,562	160,713	867,912
March	61	161	222	149	73	91,559	128,886	1,237,055
April	73	210	283	180	103	185,282	229,552	2,333,230
May	103	226	329	218	111	145,830	234,364	1,956,868
June	111	165	276	150	126	56,244	119,509	1,565,601
July	126	151	277	163	114	180,268	250,328	2,221,663
August	114	183	297	188	109	80,071	162,980	2,188,239
September	109	150	259	149	110	423,915	480,318	4,136,108
October	110	187	297	198	99	69,441	104,207	909,459
November	99	130	229	129	100	37,869	94,494	969,061
December	100	101	201	128	73	25,004	73,279	384,353
1935								
January	73	140	213	131	82	81,110	92,546	720,350
February	82	148	230	129	101	62,363	94,448	826,128
March	101	174	275	161	114	52,124	95,617	930,215
April	114	173	287	158	129	67,584	122,206	1,168,116
May	129	169	298	174	124	102,210	150,587	1,691,869
June	124	174	298	181	117	46,862	127,324	1,286,886
July	117	172	289	166	123	67,884	137,468	1,253,185
August	123	227	350	217	133	73,111	147,025	1,194,743
September	133	140	273	150	123	452,712	510,344	2,991,176
October	123	172	295	181	114	85,742	135,652	1,760,886
November	114	119	233	128	105	34,661	100,780	1,120,775
December [2]	105	90	195	110	85	15,000	60,000	697,000
1936								
January [2]	85	106	191	90	101	24,000	50,000	625,000

[1] Strikes and lockouts involving fewer than 6 workers or lasting less than 1 day are not included in this table, nor in the tables in the following article. Notices or "leads" regarding strikes are obtained by the Bureau from 670 daily papers, labor papers, and trade journals, as well as from all Government labor boards. Schedules are sent to representatives of all parties in the disputes in order to get detailed and first-hand information. Since schedules for all strikes during the last 2 months have not yet been returned, these figures are given as preliminary. Data for previous months are essentially accurate, although they cannot be considered absolutely final. Occasionally later information is received which might slightly alter these figures. These corrections will be included in subsequent reports.

[2] Preliminary figures.

Analysis of Strikes and Lockouts in November 1935

THE number of strikes and lockouts beginning in November 1935 was approximately 30 percent lower than in the previous month and nearly 10 percent lower than the number beginning in November 1934.

Of the 119 strikes and lockouts beginning in November, more than half were in three industrial groups. Twenty-six strikes and lockouts, involving more than 12,000 workers, began during the month in the textile industries; 25 disputes were in the transportation industries and 12 in retail and wholesale trade. Approximately 75 percent of the man-days of idleness because of strikes and lockouts in November were in the textile, mining, and transportation industries.

Table 1.—Strikes and Lockouts in November 1935, by Industry

Industry	Beginning in November		In progress during November		Man-days idle during November
	Number	Workers involved	Number	Workers involved	
All industries	**119**	**34,661**	**233**	**100,780**	**1,120,775**
Iron and steel and their products, not including machinery	**1**	**47**	**3**	**397**	**3,391**
Cast-iron pipe and fittings			1	100	2,000
Forgings, iron and steel	1	47	1	47	141
Stoves			1	250	1,250
Machinery, not including transportation equipment	**1**	**60**	**2**	**96**	**1,080**
Foundry and machine-shop products			1	36	720
Radios and phonographs	1	60	1	60	360
Transportation equipment	**3**	**3,851**	**5**	**4,431**	**55,448**
Automobiles, bodies, and parts	2	3,820	3	4,370	54,600
Shipbuilding	1	31	2	61	848
Nonferrous metals and their products	**3**	**923**	**5**	**1,096**	**17,169**
Aluminum manufactures			1	68	1,360
Brass, bronze, and copper products	1	13	1	13	39
Smelting and refining—copper, lead, and zinc			1	105	2,100
Stamped and enameled ware	2	910	2	910	13,670
Lumber and allied products	**7**	**1,553**	**19**	**2,865**	**35,039**
Furniture	2	58	10	454	8,414
Millwork and planing	1	481	2	640	5,585
Sawmills and logging camps	3	640	4	1,140	13,240
Other	1	374	3	631	7,800
Stone, clay, and glass products	**1**	**9**	**4**	**1,288**	**25,670**
Pottery			3	1,279	25,580
Other	1	9	1	9	90
Textiles and their products	**26**	**12,244**	**64**	**29,949**	**370,737**
Fabrics:					
Cotton goods	1	458	8	4,053	65,087
Dyeing and finishing textiles	1	374	3	569	7,738
Silk and rayon goods	7	9,322	12	9,957	140,479
Woolen and worsted goods	4	615	5	920	3,161
Other			1	220	2,640
Wearing apparel:					
Clothing, men's	7	908	11	1,304	10,223
Clothing, women's	2	450	7	2,101	27,235
Men's furnishings			2	69	948
Shirts and collars	1	65	3	952	17,062
Hosiery	2	34	8	9,567	91,730
Other	1	18	4	237	4,434
Leather and its manufactures	**2**	**1,031**	**6**	**1,809**	**13,526**
Boots and shoes	2	1,031	5	1,309	8,783
Other leather goods			1	500	4,743
Food and kindred products	**4**	**305**	**9**	**995**	**13,993**
Baking	1	26	3	377	9,035
Beverages			1	300	3,300
Canning and preserving			1	7	84
Flour and grain mills			1	32	32
Slaughtering and meat packing	2	44	2	44	132
Other	1	235	1	235	1,410

Table 1.—Strikes and Lockouts in November 1935, by Industry—Continued

Industry	Beginning in November		In progress during November		Man-days idle during November
	Number	Workers involved	Number	Workers involved	
Tobacco manufactures			**1**	**200**	**6,254**
Cigars			1	200	6,254
Paper and printing	**1**	**54**	**5**	**1,191**	**22,907**
Paper and pulp	1	54	4	1,173	22,542
Printing and publishing: Newspapers and periodicals			1	18	360
Chemicals and allied products	**1**	**13**	**1**	**13**	**65**
Paint and varnishes	1	13	1	13	65
Miscellaneous manufacturing	**3**	**227**	**10**	**1,049**	**5,813**
Broom and brush	1	76	1	76	836
Furriers and fur factories	2	151	7	653	2,027
Other			2	320	2,950
Extraction of minerals	**1**	**225**	**6**	**26,926**	**342,777**
Coal mining:					
Anthracite			1	86	946
Bituminous	1	225	4	26,140	328,460
Quarrying and nonmetallic mining			1	700	13,371
Transportation and communication	**25**	**3,272**	**32**	**11,269**	**137,353**
Water transportation	19	1,332	23	9,078	127,726
Motor transportation	6	1,940	9	2,191	9,627
Trade	**12**	**679**	**16**	**858**	**5,234**
Wholesale	2	29	2	29	146
Retail	10	650	14	829	5,088
Domestic and personal service	**3**	**1,723**	**7**	**2,699**	**10,061**
Hotels, restaurants, and boarding houses			2	37	1,040
Personal service, barbers, beauty parlors	1	500	1	500	500
Laundries	1	1,200	2	1,239	2,175
Other	1	23	2	923	6,346
Professional service	**3**	**125**	**3**	**125**	**251**
Recreation and amusement	2	15	2	15	141
Professional	1	110	1	110	110
Building and construction	**9**	**1,342**	**11**	**1,399**	**5,383**
Buildings, exclusive of P. W. A.	8	1,272	10	1,329	4,403
All other construction (bridges, docks, etc., and P. W. A. buildings)	1	70	1	70	980
Agriculture, etc	**1**	**125**	**3**	**2,725**	**13,025**
Fishing	1	125	2	2,325	3,825
Other			1	400	9,200
Relief work and W. P. A	**9**	**6,759**	**15**	**9,198**	**34,285**
Other nonmanufacturing industries	**3**	**94**	**6**	**202**	**1,319**

Approximately 45 percent of the 119 strikes and lockouts beginning in November were in 3 States—23 in California, 17 in New York, and 14 in Pennsylvania.

Of the 100,780 workers involved in the 233 strikes and lockouts which were in progress during the month, nearly 22,000 were in Alabama, over 10,000 were in New Jersey, nearly 10,000 were in New York, and 9,000 were in Pennsylvania.

Four of the disputes in progress during November extended into two or more States. The largest of these were the strike of longshoremen at ports on the Gulf of Mexico,[1] which began in October and was still in progress at some ports at the end of November, and the strike of several thousand workers in hosiery dyeing and finishing plants in New York, New Jersey, and eastern Pennsylvania, which began in October and terminated in late November.

[1] See Monthly Labor Review, February 1936 (p. 392).

Table 2.—Strikes and Lockouts in November 1935, by States

State	Beginning in November		In progress during November		Man-days idle during November
	Number	Workers involved	Number	Workers involved	
All States	119	34,661	233	100,780	1,120,775
Alabama	1	11	5	21,830	249,882
Arkansas			1	500	10,000
California	23	1,568	30	2,272	16,830
Connecticut	1	500	3	746	2,363
District of Columbia	3	182	3	182	688
Georgia			1	699	13,980
Illinois	4	1,533	10	1,973	11,896
Indiana			2	910	18,200
Kentucky			1	5,000	100,000
Louisiana	4	684	4	684	5,095
Maryland	2	200	5	365	3,655
Massachusetts	6	1,220	8	1,448	7,834
Michigan	5	4,362	6	4,612	42,023
Minnesota	5	894	8	2,198	32,162
Mississippi	1	110	1	110	110
Missouri	3	255	3	255	511
New Jersey	4	8,416	15	10,242	156,365
New York	17	7,374	39	9,843	63,854
Ohio	8	1,868	17	4,228	57,708
Oregon			2	202	1,550
Pennsylvania	14	2,998	33	9,312	72,322
Rhode Island	2	449	3	754	4,943
South Carolina			3	865	15,175
Tennessee	2	34	4	268	4,366
Texas	3	113	4	120	1,045
Vermont	1	137	2	837	13,645
Virginia			2	105	1,445
Washington	7	1,215	9	1,335	15,490
West Virginia	1	460	3	557	9,152
Wisconsin	1	13	2	563	11,026
Interstate	1	65	4	17,765	177,460

The average number of workers involved in the 119 strikes and lockouts beginning in November was 291 per strike. As indicated in table 3, more than half of the 119 disputes involved fewer than 100 workers each and only 6 involved 1,000 or more workers each.

Table 3.—Strikes and Lockouts Beginning in November 1935, Classified by Number of Workers Involved

Industrial group	Total	Number of strikes and lockouts in which the number of workers involved was—					
		6 and under 20	20 and under 100	100 and under 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000
All industries	119	26	41	40	6	5	1
Manufacturing							
Iron and steel and their products, not including machinery	1		1				
Machinery, not including transportation equipment	1		1				
Transportation equipment	3		1	1		1	
Nonferrous metals and their products	3	1		2			
Lumber and allied products	7	1	3	2	1		
Stone, clay, and glass products	1	1					
Textiles and their products	26	5	6	13	1		1
Leather and its manufactures	2			1	1		
Food and kindred products	4		3	1			
Paper and printing	1		1				
Chemicals and allied products	1	1					
Miscellaneous manufactures	3		2	1			
Nonmanufacturing							
Extraction of minerals	1			1			
Transportation and communication	25	8	10	6		1	
Trade	12	4	5	3			
Domestic and personal service	3		1		1	1	
Professional service	3	2		1			
Building and construction	9	1	4	4			
Agriculture, etc	1			1			
Relief work and W. P. A	9	1	1	3	2	2	
Other nonmanufacturing industries	3	1	2				

Matters pertaining to union organization were the major issues in 40.3 percent of the strikes and lockouts beginning in November, while wages and hours were the major issues in only 29.4 percent. As shown in table 4, the 35 strikes and lockouts over wages and hours included 62.4 percent of the total number of workers involved, while the 48 disputes over organization matters included only 23.8 percent of the workers.

The major issues in the strikes and lockouts shown under "Other" in table 4 involved such matters as objections to working under particular foremen or managers, delays in payment of wages, objections to working on holidays, increased work load, seniority rights, equalization of wages, and demands by seamen for a guaranty of return transportation in case their ship was tied up because of a strike in other than the home port.

Table 4.—Major Issues Involved in Strikes and Lockouts Beginning in November 1935

Major issues	Strikes and lockouts		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues	119	100.0	34,661	100.0
Wages and hours	**35**	**29.4**	**21,605**	**62.4**
Wage increase	12	10.2	1,505	4.3
Wage decrease	13	10.9	14,269	41.3
Wage increase, hour decrease	6	5.0	5,056	14.6
Wage decrease, hour increase	1	.8	374	1.1
Hour increase	2	1.7	351	1.0
Hour decrease	1	.8	50	.1
Organization	**48**	**40.3**	**8,259**	**23.8**
Recognition	13	10.9	2,574	7.5
Recognition and wages	8	6.7	2,534	7.3
Recognition and hours	1	.8	10	(1)
Recognition, wages, and hours	9	7.6	1,646	4.7
Closed shop	7	5.9	651	1.9
Violation of agreement	1	.8	65	.2
Discrimination	9	7.6	779	2.2
Miscellaneous	**36**	**30.3**	**4,797**	**13.8**
Sympathy	7	5.9	933	2.7
Jurisdiction	4	3.4	382	1.1
Other	25	21.0	3,482	10.0

[1] Less than 1/10 of 1 percent.

The duration of the strikes and lockouts ending in November is indicated in table 5 for each industrial group. The average duration of the 128 disputes was slightly more than 10 calendar days. About 40 percent of them were terminated in less than a week after they began. Six of the 128 had been in progress for 3 months or more. The most important of these were the strike of about 300 brewery workers in Cleveland, Ohio, which began in April and was settled November 15, 1935, and the strike of about 800 workers in a cotton-goods plant at Huntsville, Ala., which began in June and was settled November 21, 1935.

Table 5.—Duration of Strikes and Lockouts Ending in November 1935

Industrial group	Total	Number of strikes and lockouts with duration of—					
		Less than 1 week	1 week and less than ½ month	½ and less than 1 month	1 and less than 2 months	2 and less than 3 months	3 months or more
All industries	128	54	21	17	19	11	6
Manufacturing							
Iron and steel and their products, not including machinery	1				1		
Nonferrous metals and their products	3	1		2			
Lumber and allied products	7	2	1		3		1
Textiles and their products	34	14	3	5	4	5	3
Leather and its manufactures	3	1			2		
Food and kindred products	5	1	3				1
Tobacco manufactures	1				1		
Paper and printing	1	1					
Chemicals and allied products	1	1					
Miscellaneous manufactures	7	1		1	3	1	1
Nonmanufacturing							
Extraction of minerals	3			1	2		
Transportation and communication	21	12	7	1		1	
Trade	12	7	2		1	2	
Domestic and personal service	5	3		1	1		
Building and construction	7	3	3			1	
Agriculture, etc	3		1	1	1		
Relief work and W. P. A	11	5		5		1	
Other nonmanufacturing industries	3	2	1				

Government conciliators and labor boards assisted in working out settlements for 46.6 percent of the workers involved in the strikes and lockouts which ended in November. In practically all of these cases union representatives negotiated for the workers. Settlements for 34.9 percent of the workers were brought about directly by the employers and union representatives with no assistance from Government agencies. Six of the 13 strikes in which no labor organizations were instrumental in effecting settlements were strikes on W. P. A. projects. The remaining seven were, on the whole, strikes lasting only a few days and involving relatively few workers.

Eighteen of the 128 strikes and lockouts, as shown in table 6, were terminated without formal settlements. In these cases the workers simply returned to work without any settlements, or they lost their jobs when the employers hired new workers to take their places or discontinued operations by going out of business or moving to another locality.

Table 6.—Methods of Negotiating Toward Settlement of Strikes and Lockouts Ending in November 1935

Negotiations toward settlements carried on by—	Strikes and lockouts		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	128	100.0	56,307	100.0
Employers and workers directly	13	10.2	8,071	14.3
Employers and representatives of organized workers directly	57	44.4	19,638	34.9
Government conciliators or labor boards	38	29.7	26,228	46.6
Private conciliators or arbitrators	2	1.6	800	1.4
Terminated without formal settlement	18	14.1	1,570	2.8

The results of the 128 strikes and lockouts which ended in Novem ber are given in tables 7 and 8. Sixty-one of the 128 strikes an lockouts, involving 39.2 percent of the total number of workers resulted in favorable settlements to the workers; 25 disputes involvin 51.2 percent of the workers resulted in partial gains or compromise for the workers; and 36 disputes involving 8.2 percent of the worker resulted in little or no gains.

The workers secured substantial gains in 43 percent of the wage and hours disputes and in 60 percent of the disputes over organiza tion matters, and partial gains or compromises in 23 percent of th disputes over wages and hours and in 14.5 percent of the dispute over organization matters. Little or no gains were obtained in 29. percent of the wages and hours disputes and in 25.5 percent of th organization disputes.

Table 7.—Results of Strikes and Lockouts Ending in November 1935

Results	Strikes and lockouts		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	128	100.0	56,307	100.
Substantial gains to workers	61	47.7	22,064	39.
Partial gains or compromises	25	19.5	28,869	51.
Little or no gains to workers	36	28.1	4,597	8.
Jurisdiction or rival unions	3	2.3	557	1.
Undetermined	2	1.6	85	.
Not reported	1	.8	135	.

Table 8.—Results of Strikes and Lockouts Ending in November 1935, in Relation to Major Issues Involved

Major issues	Total	Number of strikes and lockouts resulting in—					
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdictional or rival union settlements	Undetermined	Not reported
All issues	128	61	25	36	3	2	
Wages and hours	**44**	**19**	**10**	**13**		**1**	
Wage increase	22	9	5	6		1	
Wage decrease	10	3	2	5			
Wage increase, hour decrease	8	5	2	1			
Wages and other causes	1		1				
Hour increase	2	1		1			
Hour decrease	1	1					
Organization	**55**	**33**	**8**	**14**			
Recognition	11	9	2				
Recognition and wages	8	5	3				
Recognition and hours	1	1					
Recognition, wages and hours	16	11	1	4			
Closed shop	8	3	1	4			
Discrimination	11	4	1	6			
Miscellaneous	**29**	**9**	**7**	**9**	**3**	**1**	
Sympathy	4	3				1	
Different unions competing for control	1				1		
Jurisdiction	2				2		
Other	22	6	7	9			

Conciliation Work of the Department of Labor in January 1936

By Hugh L. Kerwin, Director of Conciliation

DURING January 1936 the Secretary of Labor, through the Conciliation Service, exercised her good offices in connection with 83 disputes, which affected a known total of 36,579 employees. Of these disputes 43 were adjusted, 5 were referred to other agencies, 3 were settled locally or by the parties at interest, 5 could not be adjusted, and 27 were still pending. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout, or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

Labor Disputes Handled by Conciliation Service During the Month of January 1936

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Commissioner assigned	Assignment completed	Workers involved	
							Directly	Indirectly
					1935	*1936*		
Dick Brothers, Inc., Reading, Pa.	Strike	Metal polishers	Discharges for union affiliation	Adjusted. Satisfactory agreement.	Dec. 17	Jan. 18	48	
Tucker Oil Co., Wichita Falls, Tex.	Controversy	Oil and refinery workers	Collective bargaining	Unclassified. Referred to National Labor Relations Board.	Dec. 27	Jan. 10	79	2
Market owners, Wheeling, W. Va.	do	Butcher workmen	Owners refused to pay agreed wage scale.	Adjusted. Dealers agreed to abide by existing agreement.	Dec. 19	Jan. 13	60	
Oles Co., Youngstown, Ohio	do	Bakers and butchers	Alleged violation of agreement	Unable to adjust. Conferences refused.	Dec. 31	Jan. 5	100	
Colver Store Co., Colver, Pa.	Strike	Store clerks	Asked increase of 15 percent and union agreement.	Adjusted. Increase of $2 per week, seniority rights, and recognition.	Dec. 30	Jan. 18	24	12
Ashley Dress Co., Ashley, Pa.	do	Dress workers	Wages and protest—overtime work and general conditions.	Adjusted. Overtime eliminated, machine work readjusted, and wages to be fixed in conference.	Dec. 17	Jan. 9	104	
Vehicle-body plants, New York and New Jersey.	do	Body makers	Union agreement refused	Pending	Dec. 15		600	
Lester & Toner, Greenpoint, Long Island, N. Y.	Threatened strike.	Oyster openers	Interpretation of contract	Adjusted. Agreed on arbitration of points in dispute.	Dec. 30	Jan. 10	30	
T. W. D. Transportation Co., Inc., Buffalo, N. Y.	do	Truck drivers	Discharge of drivers	Adjusted. Reinstated driver with full pay.	Dec. 23	Jan. 18	35	18
64 steam schooners, Pacific coast.	Strike	Sailors, firemen, oilers, cooks, and stewards.	Asked 6-hour day, overtime pay, and new agreement.	Adjusted. Accepted terms of existing agreement and returned to work.	Dec. 13	Jan. 6	1,500	
Elgin Watch Co. and Elgin Manufacturing Co., Elgin, Ill.	Controversy	Watch makers	Discharge of worker	Adjusted. Agreed to reinstate worker.	do	do	1	700
Mott Haven Finished Laundry, Inc., Bronx, N. Y.	Threatened strike.	Laundry workers	Wages, hours, and union recognition.	Pending	Nov. 28		92	38
Majestic Flour Mill, Aurora, Mo.	Strike	Mill workers	Wages	Unable to adjust	Dec. 1	Jan. 28	88	7
Orleans Stores, Chicago, Ill.	Controversy	Bushelmen	Dispute relative to overtime work	Adjusted. Agreed to abide by existing agreement.	Dec. 15	Jan. 17	3	
Longshoremen, Gulfport, Miss.	Strike	Longshoremen	Asked new agreement providing union recognition.	Adjusted. Signed agreement, giving union recognition.	Oct. 1	Jan. 21	265	511
Longshoremen, New Orleans, La., and Mobile, Ala.	do	do	do	Pending	do		350	3,000
Filling-station attendants, Akron, Ohio.	Controversy	Station attendants	Wages and working conditions	Adjusted. Satisfactory agreement	Dec. 1	Jan. 16	180	
Riggs Optical Co., St. Louis, Mo.	do	Optical workers	Protest—48-hour week	Adjusted. Company paid workers back pay for overtime work.	Nov. 9	Jan. 24	10	
P. W. A. building projects, Davenport, Iowa, Rock	do	Building crafts	Prevailing rates	Pending	Dec. 20		125	

Akron, Ohio.								
Riggs Optical Co., St. Louis, Mo.	...do...	Optical workers	Protest—48-hour week	Adjusted. Company paid workers back pay for overtime work.	Nov. 9	Jan. 24	10	...
P. W. A. building projects, Davenport, Iowa, Rock Island and Moline, Ill.	...do...	Building crafts	Prevailing rates	Pending	Dec. 20	...	125	...
					1936			
American Window Glass Co., Jeannette and other cities, Pennsylvania, West Virginia, Arkansas, and Oklahoma.	Strike	Glass workers	Asked 7½-percent increase, check-off, and new agreement.	Adjusted. Increase of 5 percent, workers returned in some plants; others may return later.	Jan. 2	Jan. 26	2,245	400
Great Lakes Dredge & Dock Co., Peoria, Ill.	Controversy	Building trades	Dispute relative to jurisdiction	Adjusted. Satisfactory settlement.	...do...	Jan. 3	60	...
Bord Disposal Co., Youngstown, Ohio.	Threatened strike.	Truck drivers	Wages and working conditions	Adjusted. Signed agreement with increase.	Jan. 4	Jan. 6	28	...
Telegram management, Youngstown, Ohio.	...do...	...do...	Wages, hours, and overtime pay	Adjusted. Allowed $25 per week, overtime pay, and 48-hour week.	...do...	...do...	6	...
United Fuel & Gas Co., Charleston, W. Va.	Controversy	Oil and gas workers	Wages and working conditions	Adjusted. Improved conditions; seniority rights; increase will be considered later.	Jan. 2	Jan. 14	200	...
Fire-station building, Davenport, Iowa.	Threatened strike.	Ironworkers and carpenters.	Jurisdiction	Adjusted. Jurisdiction settled	Jan. 3	Jan. 10	4	...
Memphis Glass Co., Memphis, Tenn.	Lockout	Glass workers	Proposed wage cut	Pending	Jan. 6	...	47	9
Forest City Colliery, Forest City, Pa.	Controversy	Miners	Effort to have mine reopened	...do...	Jan. 3	...	(1)	...
Craddock Terry Shoe Manufacturing Co., Lynchburg, Va.	Strike	Boot and shoe workers	Asked signed agreement	Adjusted. Returned to work; committee to form agreement.	Jan. 6	Jan. 7	85	615
Quaker City Chocolate & Confectionery Co.	...do...	Confectionery workers	Hours increased to 47½ per week	Adjusted. Restored 40-hour week and workers returned.	Jan. 2	Jan. 3	145	...
Youngstown Towel & Supply Co., Youngstown, Ohio.	Threatened strike.	Drivers	Wages and working conditions	Adjusted. Agreement with increase and improved conditions.	Jan. 4	Jan. 6	32	...
Empire Case Goods Co., Jamestown, N. Y.	Controversy	Furniture workers	Asked 10-percent increase and adherence to existing agreement.	Adjusted. Will abide by agreement and increase of 10 percent taken under consideration.	Jan. 11	Jan. 30	275	15
Allied Mills, Buffalo, N. Y.	Threatened strike.	Flour and feed-mill workers.	Refusal to renew agreement with workers.	Adjusted. Agreed to abide by existing agreement and future terms taken under consideration.	Jan. 10	Jan. 23	60	10
Fanny Farmer Candy Co., Cleveland, Ohio.	Strike	Candy workers	Working conditions and proposal to move plant.	Adjusted. Working agreement for 1 year concluded.	Jan. 8	Jan. 14	55	75
Radio Station KABC, San Antonio, Tex.	Controversy	Electricians	Discharge of 3 men	Unclassified. Referred to National Labor Relations Board.	Jan. 10	Jan. 16	5	20
Window cleaners, Philadelphia, Pa.	...do...	Window cleaners	Asked 30-hour week and union recognition.	Unclassified. Settled by local officials.	Jan. 9	Jan. 18	800	...
Burton Manufacturing Co., Jasper, Ala.	Threatened strike.	Leather workers	Wages and hours	Adjusted. Increase of 5 cents per hour and 8-hour day.	Jan. 1	Jan. 29	59	4
Panama Pacific Steamship Co., Pacific coast.	Strike	Sailors, firemen, oilers, and stewards.	Asked equalization of wage scales for Atlantic and Pacific coast.	Adjusted. Compromised so that S. S. *Pennsylvania* sailed with reduced crew as freighter.	Jan. 4	Jan. 9	350	150

[1] Not yet reported.

Labor Disputes Handled by Conciliation Service During the Month of January 1936—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Commissioner assigned	Assignment completed	Workers involved	
							Directly	Indirectly
					1936	*1936*		
Robert H. Foederer, Inc., Philadelphia, Pa.	Strike	Leather workers	Violation of agreement	Pending	Jan. 14		600	
Lever Bros., Hammond, Ind.	Controversy	Soap and glycerin workers.	Working conditions	do	Jan. 13		(1)	
Standard Oil Co., Sugar Creek, Mo.	do	Refinery workers	Asked wage adjustment	Adjusted. Satisfactory arbitration as provided by existing agreement.	Jan. 8	Jan. 28	136	
P. W. A. projects, Jackson, Miss.	Strike	Building crafts	Wages and alleged discrimination.	Pending	Jan. 31		75	700
Peoples Drug Co., Youngstown, Ohio.	Controversy	Sign painters	Employment of nonunion sign painters.	Adjusted. Union sign painters employed.	Jan. 1	Jan. 6	50	
Century Beverly Corp., Boyerstown. Pa.	Strike	Garment cutters	Wages cut 10 percent	Adjusted. Will take strikers back when vacancies occur.	Jan. 8	Jan. 24	417	
Byrun Jackson Pump Co., West Berkeley, Calif.	do	Machinists	Working conditions	Pending	Jan. 15		(1)	
Columbia Radiator Co., McKeesport, Pa.	Threatened strike.	Radiator makers	Machine work replaced hand labor, eliminating 4 workers and reducing pay.	Unclassified. Referred to Pittsburgh Regional Board.	Jan. 9	Feb. 7	9	491
Kroger Grocery Stores and Piggly Wiggly Stores, Memphis, Tenn.	Strike	Grocery clerks	Wage scale and closed shop	Pending	Jan. 13		81	250
Brown Shoe Co., Salem, Ill.	Controversy	Shoe workers	Wages and hours	do	Jan. 15		250	
Logan Republican, Logan, Ohio.	Strike	Typographical workers	Working conditions	Unclassified. Settled by parties in interest.	do	Jan. 22	4	8
P. W. A. hospital building, Memphis, Tenn.	Controversy	Marble masons and plumbers.	Installation of bathroom fixtures	Adjusted. Work to be divided between masons and plumbers.	Jan. 2	Jan. 21	3	
Automobile dealers, Dayton, Ohio.	Threatened strike.	Machinists	Refusal to renew agreement with changes.	Unable to adjust	Jan. 16	Jan. 31	150	
Dayton Steel Foundry Co., Dayton, Ohio.	do	do	Violation of agreement	Unclassified. Settled before arrival of commissioner.	do	Jan. 21	(1)	
Shipbuilding workers, Newport News, Va.	Controversy	Shipbuilders	Working conditions	Pending	Jan. 15		7,000	
Somerville Manufacturing Co., Somerville, N. J.	Strike	Ladies' and children's garment workers.	Asked union recognition	do	Jan. 16		92	
Ship workers, San Pedro, Calif.	Threatened strike.	Ship workers	Return of S. S. *Pennsylvania* crew on the S. S. *California* to New York.	Adjusted. Allowed, and deserter charges withdrawn by company.	Jan. 11	Jan. 20	440	370
Mechanics and laborers, Blue Plains, D. C.	Strike	Building	Jurisdiction of millwrights and ironworkers on conveyor system.	Pending	Jan. 15	Jan. 28	16	400
					Jan. 1	Jan. 30	26	32

Mechanics and laborers, Blue Plains, D. C.	Strike	Building	Jurisdiction of millwrights and ironworkers on conveyor system.	Pending	Jan. 15	Jan. 28	16	400
Willard Hotel, Washington, D. C.	Threatened strike.	Kitchen workers	Rates of wages cut 5 percent	Unclassified. Referred to National Labor Relations Board.	Jan. 1	Jan. 20	26	32
Liberty Cash Grocers, Inc., Memphis, Tenn.	Controversy	Clerks	Asked increase, closed shop, and shorter hours.	Adjusted. Increase, overtime pay, and closed shop.	Jan. 10	Jan. 16	160	73
Plough, Inc., Memphis, Tenn.	do	Cosmetic workers	Violation of agreement	Adjusted. Satisfactory settlement.	Jan. 17	Jan. 30	4	92
Transfer companies, Washington, D. C.	Strike	Teamsters	Asked agreement covering wages, hours, and working conditions.	Pending	Jan. 16		60	1,000
Street-railway workers, Indianapolis, Ind.	Controversy	Street-railway workers	Increase, overtime, pay, and closed shop.	do	Jan. 21		700	370
Foster Bedding Co., Baltimore, Md.	Strike	Bedding workers	Discharges; discrimination alleged.	Unclassified. Referred to regional board of Baltimore.	Jan. 20	Jan. 24	102	118
Moore Mill & Timber Co., San Francisco, Calif., and Bandon, Oreg.	do	Longshoremen and sawmill workers.	Reinstatement of discharged sawmill workers.	Adjusted. Strike withdrawn	Jan. 2	Jan. 16	12	65
American Distilling Co., Pekin, Ill.	do	Distillery workers	Discharge of distillery workers	Adjusted. Workers reinstated	Jan. 22	Feb. 7	800	29
General industry, Pekin, Ill.	do	All industries	Sympathy strike on account of distillery workers' discharge.	Adjusted. Union agreements secured and all returned.	Feb. 1	do	3,500	
G. L. F. Milling Co., Buffalo, N. Y.	do	Mill workers	Dispute relative to failure to pay union dues.	Adjusted. Satisfactory settlement.	Jan. 15	Jan. 23	145	30
Universal Engraving Co., Buffalo, N. Y.	do	Photoengravers	Wages, overtime pay, and hours.	Pending	Jan. 31		16	10
Green Bay Drop Forge Co., Green Bay, Wis.	Controversy	Drop forgers	Asked wage increase of 5 percent	Adjusted. Accepted arbitration of wage question.	Jan. 21	Jan. 28	115	5
McMillion Motor Co., Inc., Charleston, W. Va.	Strike	Machinists	Workers discharged	Unable to adjust	Jan. 16	Jan. 30	11	12
Bus drivers, Madison, Wis.	do	Drivers	Wages	Adjusted. Increase of 7 cents per hour; all returned to work.	Feb. 1	Feb. 2	80	20
Marine shipyards and shops, San Pedro, Calif.	do	Shipyard workers	Wages and hours	Pending	Jan. 28		1,400	
Champion Forge Co., Cleveland, Ohio.	Controversy	Blacksmiths	Wages, hours, and working conditions.	do	Jan. 27		(1)	
P. W. A. hospital building, Memphis, Tenn.	do	Carpenters	Nonunion carpenters employed	Adjusted. Union carpenters employed.	Jan. 70	Jan. 21	5	
Memphis Power & Light Co., Memphis, Tenn.	do	Electrical workers	Alleged discrimination	Adjusted. Satisfactory agreement.	Jan. 3	Jan. 22	1	
Republic Film Exchange Co., New York City.	Threatened strike.	Film-exchange workers	Wages, hours, and speed-up system.	Pending	Jan. 20		12	
August Neuse Co., New York City.	do	Optical workers	Wages, union recognition, and collective bargaining.	do	do		8	
Milk drivers, Akron, Ohio	do	Milk drivers	Asked 3 to 8 cents per hour increase.	do	Jan. 30		600	
Janson Steel & Iron Co., Columbia, Pa.	Strike	Steel and iron workers	Proposed 10-hour day	Adjusted. Continued 8-hour day and recognized shop committee.	Jan. 6	Jan. 31	60	120

[1] Not yet reported.

Labor Disputes Handled by Conciliation Service During the Month of January 1936—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Commissioner assigned	Assignment completed	Workers involved	
							Directly	Indirectly
					1936	*1936*		
Eureka Fire Brick Co., Mt. Braddock, Pa.	Strike	Fire-brick workers	Asked 10-percent increase	Adjusted. Allowed 10-percent increase till May 31.	Feb. 1	Feb. 3		
Cron Kills Furniture Co., Piqua, Ohio.	do	Carpenters and joiners	Change to piecework rate and discharges.	Unable to adjust	Jan. 22	Feb. 8	93	37
Wm. H. Block Co., Indianapolis, Ind.	do	Teamsters	Two discharged for union affiliation.	Pending	Jan. 18		28	
Street-railway workers, Omaha, Nebr., and, Council Bluffs, Iowa.	Controversy	Street-railway workers	Further mediation requested in old dispute.	do	Jan. 15		(1)	
Fine & Sons, New Albany, Ind.	Strike	Shirt makers	Wages and working conditions	do	Jan. 23		1,350	
Ship joiners and calkers, Wilmington, Calif.	do	Joiners and calkers	Wage scales; claim $1.10 instead of 80 cents per hour.	do	Jan. 29		(1)	
Total							26,761	9,818

[1] Not yet reported.

Work of Railway Labor Boards, 1934–35[1]

DURING 1934–35, the first year of its operation, the National Mediation Board handled 96 cases involving representation of workers for purposes of collective bargaining and 70 cases of mediation of disputes regarding changes in wages, hours, or working conditions. These cases involved a total of more than 100,000 employees on 117 railroads. In addition, the National Railroad Adjustment Board, created under the same act as the National Mediation Board,[2] disposed of 583 cases involving the interpretation or application of agreements. No boards of arbitration, provided for in case of the failure of mediation, were set up during the year but two boards established during the previous year announced their awards in the course of the year ending June 30, 1935. No emergency boards were formed, as two emergency situations which developed were settled by renewed mediation efforts of the full Mediation Board.

Despite the volume of cases which came before the two permanent railway labor agencies, no strike occurred in the railroad industry in the course of the year. This represented the fifth consecutive year without a strike and continued the almost unbroken record of peaceful negotiation in the industry since the passage of the 1926 act.

The National Mediation Board, in commenting on this fact in its report, states:

> That the railroad industry could maintain such a peaceful record, especially since 1932 when strikes and industrial unrest have been prevalent in other industries throughout the country, is testimony to the soundness and effectiveness of the labor policies formulated by Congress in the Railway Labor Act.

Elsewhere in the report the Board terms the present law "the most advanced form of Government regulation of labor relations that we have in this country" and says that "These principles and methods, built up through years of experimentation, provide a model labor policy, based on equal rights and equitable relations."

Representation Cases

ONE of the important changes introduced by the 1934 act related to disputes over the agency entitled to represent the workers in dealing with the carrier. Elections to determine such representation had been held by the old Board of Mediation where carrier and labor organizations agreed to such an election. The act of 1926 made no specific provision for such cases, but the act of 1934 charged the National Mediation Board with the duty of investigating representa-

[1] Data are from National Mediation Board, First Annual Report, for year ended June 30, 1935, Washington, 1935. (Includes also report of National Railroad Adjustment Board.)

[2] Railway Labor Act, 1934 (Public, No. 442, 73d Cong.). For text and discussion of this act see Monthly Labor Review, August 1934 (pp. 352-363).

tion disputes on the request of either party and of determining the individual or organization entitled to represent the workers. In this task it may use a secret ballot or any other appropriate method which will guarantee free choice. Rules governing the elections, including who may vote, are set by the Board. The law specifically provides that "the majority of any craft or class of employees" shall determine the representative of that craft or class.

Of the 96 representation disputes handled by the Board during the year, 4 were adjusted by agreement of the carrier to recognize the employees' representatives. Two others were withdrawn and one was dismissed on the ground that the employees covered by the request for an election did not form a class or craft within the meaning of the act.

In the remaining 89 cases formal certification of the agency entitled to act as representative was made by the Board. In 58 cases [3] this was done on the basis of a secret election, and in 33 by checking the signatures on written authorizations against the pay roll of the carrier. The two groups of cases involved a total of 82,124 workers, about three-fourths of whom were in the shop crafts. Nearly 70,000 employees participated, representing approximately 85 percent of the total eligible (table 1).

Table 1.—Elections and Checks of Authorizations by Classes of Employees and Number Participating

Classes of employees [1]	Number of elections	Number of authorization checks	Number of employees participating	Number of employees eligible
Engine and train service employees	18	3	3,348	3,689
Shop crafts	23	12	52,652	61,309
Clerks, office and station employees	1 6	7	8,271	9,400
Maintenance-of-way employees	4	1	3,573	5,392
Telegraphers, signalmen, and dispatchers	1 6	2	800	894
Dining-car cooks and waiters	0	2	271	421
Marine employees	1	6	712	1,019
Total	58	33	69,727	82,124

[1] 1 case involving clerks and 1 involving signalmen required a second election because the results of the first election were inconclusive.

A feature of these disputes rarely encountered in the representation disputes handled by Government labor boards in other industries was the fact that most of the cases involved more than one craft or class. The 89 cases thus represented disputes in 291 separate crafts or classes of employees. For 18 crafts the result was inconclusive; certifications were made for the remaining crafts.

Although the law permits the designation of either individuals or organizations as representatives, no individuals were so chosen in any of the elections. In most cases a standard trade-union, or a

[3] Two cases required a second election.

national labor organization,[4] was certified as representative, but in a small number of cases a system association (organizations of employees confined to one railroad system) and in 3 cases a trade-union other than national labor organizations was named.

Of the 273 certifications issued, 26 were cases of contests involving two or more national labor organizations. The remaining 247 cases involved situations in which the national organization (or, in 3 cases, some other trade-union) was opposed by a system association or by unorganized employees.

Of these contests, the national labor organizations won 213, the system associations 31, and 3 went to other trade-unions. Almost three-fourths of the individual votes or signed authorization slips favored national labor organizations, practically all of the remainder going to system associations (table 2).

Table 2.—Type of Organizations Chosen in Cases Involving Disputes Between National Labor Organizations and System Associations or Unorganized Employees

Method of choice	Certifications won by—						Employees voting for, or otherwise choosing—					
	National labor organizations		System associations [1]		Other organizations [2]		National labor organizations		System associations [1]		Other organizations [2]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Elections	134	80.72	31	18.68	1	0.60	39,273	69.18	17,400	30.65	100	0.17
Proved authorizations	79	97.53	0	0	2	2.47	8,238	93.08	341	3.85	271	3.07
Total [3]	[4] 213	86.24	31	12.55	3	1.21	[4] 47,511	72.40	17,741	27.03	371	.57

[1] A number of system associations have combined to form a brotherhood of railroad shop crafts, which has not been recognized as a labor organization "national in scope" as provided in sec. 3 (f) of the Railway Labor Act.

[2] Includes 2 organizations of dining-car cooks and waiters and 1 organization of train porters.

[3] Elections in 18 additional crafts resulted in no majority for any organization and no certifications were made for these.

[4] These do not include 26 certifications made to national labor organizations as a result of elections in which only such organizations were the contestants. The number of employees voting in these elections was 3,220.

Jurisdictional Disputes

THE 18 representation disputes involving two or more national labor organizations, including 31 crafts or classes of employees, affected 3,547 employees. Certifications were issued in 26 cases while in 5 cases no organization obtained a majority. Although these cases included less than 5 percent of the total employees involved in all representation cases, they required a disproportionate share of the Board's time.

[4] The term adopted by the National Mediation Board to describe organizations entitled to participate in the selection of members of the National Railroad Adjustment Board, under the provision in sec. 3 (a) of the 1934 act, which grants this right to such "labor organizations of the employees, national in scope, as have been or may be organized in accordance with the provisions of sec. 2 of this act."

The Board commented on the situation as follows:

If each labor organization confined itself to a clearly defined craft or class of employees, it might refuse to act as a representative of any other class or craft, and thus avoid bringing such disputes before the Board. But we regret to have to report that at the present writing the number of these disputes coming to the Board is increasing. Whereas the disputes arose mainly because of overlapping jurisdiction, and at first most of the cases were of this character, the antagonism engendered by the contests has developed a tendency for employees who are members of one organization to challenge the representation of other organizations over crafts or classes of employees that they formerly did not seek to represent.

Regrettable as these disputes are, it is nevertheless fortunate that the Railway Labor Act provides a method of settling them peacefully. Such conflicts in other industries often result in strikes and interruptions of service which are costly to the public, to employers, and to employees. If interruptions of railroad service on account of such disputes can be prevented by the procedures under section 2, ninth, of the act, this is a net gain and one of the important accomplishments of the act, no matter how much time and effort it takes and however unwise it may be that employees' organizations whose aims are the same shall be engaged in jurisdictional quarrels.

Problems of Representation

In carrying out its work of certifying collective-bargaining representatives, the Board encountered problems similar to those which have confronted other Government labor boards which have attempted to settle representation controversies. The form in which these problems have been presented, however, has been affected by the legislation under which the Board functions and by the characteristics and traditions of the industry.

While the act provides [5] that the majority of any class shall determine the representative of the class, it does not specify whether it shall be a majority of those eligible to vote or of only those who voted. The Board adopted the position that a majority of all eligibles was required. When, however, the parties agreed to be bound by a majority of the votes cast, the Board took the position that it would certify on this basis. Representatives for 107 crafts or classes of employees were certified in this manner. In the one case in which the Board's interpretation was challenged by court action, the Federal district court upheld the Board's position except for one craft where less than a majority of those eligible to vote participated in the election.[6]

In determining what constitutes a craft or class, the Board has as far as possible followed the pattern set by employee organizations and collective agreements in the past. However, there has been considerable pressure from all branches of employment to have the Board split into smaller groups classes of employees heretofore treated as a unit. The year's experience convinced the Board that this tendency

[5] Sec. 2, fourth.

[6] *Railway Employees Dept., A. F. L., System Federation No. 40* v. *The Virginian Railway Co.*, Judge Way, Decision No. 329, July 24, 1935. The decision has been appealed by the railway company.

to divide and subdivide has gone too far and threatens to defeat the main purpose of the act, as well as to interfere with efficient operation.

In determining who is an "employee" eligible to participate in elections, the Board has ruled that the person must have been definitely on a pay roll within a reasonable period prior to the election. Employees "excepted" from collective agreement because of the confidential, supervisory, or disciplinary character of their work have generally been excluded from voting. Both of these rulings have been sustained by a Federal court.[7]

The Board has ruled that "red caps" or station ushers are employees within the act. One carrier, however, has refused to honor a certification issued by the Board covering such workers, and judicial action to enforce the Board's ruling is being considered. Two cases involving workers employed by contractors hired by the railroad were determined diversely on the basis of the facts in each particular case.

Where employees choose a new representative while an agreement is already in force, the Board has ruled that this does not alter or cancel the existing agreement. The new representative assumes the same functions and duties with regard to the existing agreement as applied to the former representative and must give due notice of any desire to change the agreement.

Mediation Settlements

Of the 70 mediation cases handled by the Board in the course of the year, 20 were withdrawn before mediation began and 19 after mediation had begun or during the process of mediation. Most of these withdrawals represented satisfactory adjustments of the difficulties or removal of the cause of dispute; a few were cases withdrawn for resubmission in amended form or for handling by the Railroad Labor Adjustment Board. Six cases were closed by the Board for various reasons.[8] The remaining 25 were adjusted by mediation, 24 of them through a signed agreement.

The Board found that the only serious problem in its mediation work grew out of failure to comply with a number of awards of the National Railroad Adjustment Board. In one such case the employees threatened to strike to secure the enforcement of an award, claiming that the carrier was bound either to obey it or to apply for a court order setting it aside. The Board thereupon entered the case and, after 2 weeks of negotiation, effected an agreement on the proper procedure to be followed in affirming or setting aside the award.

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[7] *Chesapeake & Ohio Clerks' Association* v. *Board*, Supreme Court, District of Columbia. Decision of Judge F. D. Letts, Sept. 7, 1934.

[8] In 2 cases arbitration was refused, 2 cases were dismissed for lack of jurisdiction, and 2 others were remanded for further negotiation.

Collective Agreements

THE 1934 act requires the filing with the National Mediation Board of a copy of each contract covering rates of pay, rules, and working conditions. As a result of this provision, the Board has been able in its report to chart the agreements in force on each railroad, by each class or craft of work. The report analyzes the extent to which roads and workers are covered by agreements with national labor organizations, system associations, and trade-unions.[9] The Board comments that "The extent to which labor relations are governed by such agreements is the measure of the extent to which law, democratically made by employees as well as employers, has been substituted for the rule of economic force and warfare in the railroad industry."

National Railroad Adjustment Board

THE National Railroad Adjustment Board was established to remedy defects which had developed in the operation of the adjustment boards provided for under the 1926 act. The 1934 act created a permanent bipartisan national adjustment board having jurisdiction over all disputes involving the interpretation or application of agreements except where the parties have by mutual agreement set up a board. The decisions of the Board are made enforceable by civil suits in Federal courts. In case of a deadlock, a referee with decisive vote is to be selected by the two parties, or, failing that, by the National Mediation Board.

The National Railroad Adjustment Board consists of 36 members, and is divided into four divisions, each equally representative of carriers and labor and each handling a different class of employees.[10] The Board as a whole does not hear any cases, each division having complete charge of cases involving its own type of employees.

The four divisions received a total of 1,753 cases during the first year of operation. About one-third of these were finally disposed of, while 213 more were heard but not yet decided by the end of the fiscal year. Of the 479 awards, 101 were cases in which the services of a referee were required in order to reach a decision.

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[9] This material was incorporated in an article in the Monthly Labor Review for December 1935 (pp. 1463–1466).

[10] Division 1, train and yard service; Division 2, shop-craft employees; Division 3, station, tower, and telegraph employees, signalmen, clerks, freight handlers, express, station and store employees, maintenance-of-way workers, and sleeping-car conductors, porters, maids, and dining-car employees; Division 4, marine and other employees. Each division has 10 members, except no. 4, which has 6.

Table 3.—Number of Cases Received and Disposed of by National Railroad Adjustment Board, 1934–35

Item	All divisions	Division no. 1	Division no. 2	Division no. 3	Division no. 4
Cases received, 1934–35	1,753	1,590	9	150	4
Cases disposed of	583	495	1	84	3
Awards issued	479	394	1	81	3
Heard and withdrawn	3	3	0	0	0
Withdrawn, not heard	101	98	0	3	0
Open cases, June 30, 1935	1,170	1,095	8	66	1
Heard but undecided	213	182	8	23	0
Docketed to be heard	957	913	0	43	1
Total cases heard	700	579	9	109	3
Decided without referee	378	314	1	60	3
Decided with referee	101	80	0	21	0

The setting up of the National Railroad Adjustment Board resulted in the dissolution of most of the voluntary system and regional adjustment boards set up under the provisions of the 1926 act. The 1934 act, however, permits the continuation of such boards by agreement of carriers and representatives of employees, and some boards have continued to operate under this provision.

INTERNATIONAL LABOR CONDITIONS

Labor Conference of American States, Santiago, Chile 1936

By Warren Irvin, Information Section, International Labor Office

MORE than 20 resolutions dealing with social or labor questions of peculiar interest to the countries of North, South, or Central America were adopted at the Labor Conference of American States, held in Santiago, Chile, from January 2 to January 14, inclusive, and were referred by the conference, for action, to the Governing Body of the International Labor Office in Geneva.

The principal questions dealt with in the resolutions were: Compulsory social insurance, women's and children's work, nutrition, unemployment, migration, labor of native races, the truck system, agricultural work, and the relations of the International Labor Organization with American countries.

The conference, the first of its kind to be held in the New World, was attended by representatives of 20 countries. Costa Rica, the only American country not a member of the I. L. O., sent two observers. The United States delegation comprised: Hoffman Philip, Ambassador to Chile, and Miss Frieda Miller of the New York State Department of Labor, Government representatives; Joseph C. Molanphy, employers' representative; William Hutcheson, president of the International Brotherhood of Carpenters and Joiners of the American Federation of Labor, workers' representative; and John B. Faust, United States consul at Santiago, secretary.

President Arturo Alessandri of Chile attended the inaugural session. Foreign Minister Miguel Cruchaga Tocornal, speaking on behalf of the President, welcomed the delegates and pointed out that Chile has collaborated in the work of the I. L. O. since its inception, and has already ratified 33 international labor conventions.

Dr. Walter A. Riddell, chairman of the Governing Body of the I. L. O. and a Canadian Government delegate to the conference, replied on behalf of the delegates and thanked President Alessandri for his "noble initiative which has made possible this first regional labor conference in the Americas."

Besides Dr. Riddell, seven other members of the Governing Body of the I. L. O. attended the conference. They were: Hans C. Oersted,

vice chairman and Danish employers' representative; Frederick W. Leggett, British Government representative; José Ruiz Manent, Spanish Government representative; Affonso Bandeira de Mello, Brazilian Government representative and head of the Brazilian delegation to the conference; Georges Čurčin, Yugoslav employers' representative; Evert Kupers, Netherlands workers' representative; and Arthur Hayday, British workers' representative.

Minister of Labor Alejandro Serani Burgos of Chile was chosen as chairman of the conference; and, at the suggestion of Ambassador Philip, President Alessandri was made honorary chairman.

Dr. José Antuña, Uruguayan Government delegate sought to obtain from the conference endorsement of a proposal made at the 1933 Pan American conference in Montevideo for the establishment of a Pan American institute of labor. "The Pan American institute of labor", he said, "should be a useful contribution to the work of the Geneva organization and to its development. Both will be moved by the same desire for sincerity and for social justice which is an essential basis of peace, and will certainly bring them together."

Ecuador, Mexico, and Paraguay supported Dr. Antuña's proposal. Chile, Haiti, and Brazil opposed it. But the principal opposition came from the workers' group. Luis Solis Solis of Chile, chairman of that group, declared:

> We think that the importance of geographical and historical considerations has been largely overemphasized. The rapid developments of recent years have abolished many of the differences between countries. They have cut down the distances that separate us and have accentuated the interdependence of peoples. Therefore it would be a retrograde step to try at this stage to set up a separate labor organization for America.

Later, in the selection committee, Dr. Antuña's proposal met with further opposition on the ground that it was a Pan American conference matter and had no place in the discussions of the Labor Conference of American States. Dr. Antuña finally consented to withdraw the proposal. The United States delegates took no part in the controversy.

The position of the United States as regards the two questions it had proposed for the conference agenda—rationalization of, and reduction of hours of work in, the textile industry; and the raising to 16 years of the minimum age for admission to employment—was presented by Miss Miller. In discussing the first question, she gave a brief résumé of conditions in the textile industry here, and cited President Roosevelt's report to Congress last August, wherein he asserted that the experience of the industry during the preceding 2 years had shown a definite limitation of hours of employment to be "both feasible and practicable." He also declared that abolition of child labor in the industry was an advance which "must be retained."

The employers' delegates of both Chile and Brazil put themselves on record as opposing any reduction of hours of work in the industry. Mr. Goyeneche Magnere, of Chile, said that while the United States was an industrial country suffering from unemployment, the South American countries "are only gradually becoming industrialized and have no unemployment." He argued that shorter hours in South American countries would not only create "danger of idleness and its pernicious consequences", but would lead to a decrease in the volume of production and augment the difficulties of competition with foreign products. Mr. Vincente Galliez, of Brazil, said the difficulty of his country was to obtain a sufficient number of trained Brazilian workers. While there is considerable unemployment in the United States, he said, conditions in most South American countries are similar to Brazil.

With regard to the United States proposal to raise to 16 years the minimum age for admission to employment, Miss Miller said she was aware proponents and opponents of child labor often put this question on the basis of a measure that would help the unemployment situation. That, she held, would be one of the incidental results. "To us", she explained, "the real significance of a proposal to eliminate child labor lies in the fact that if, anywhere in the world, we continue long to exploit the labor of children, we shall invalidate our most earnest efforts toward the achievement of those objects for which the International Labor Organization exists." The conference decided finally to request the Governing Body of the I. L. O. to consider the advisability of recommending to the International Labor Conference the raising of the present minimum age of 14 years in the four child-labor conventions.

The committee on social insurance, of which José Enrique Sandoval, Cuban Government delegate, was chairman, took as a basis for its discussions the special report prepared by the International Labor Office. This report contained detailed studies of the various aspects of accident, health, and invalidity insurance, and widows' and orphans' and old-age pensions. The decisions of the committee were incorporated in a series of resolutions addressed to the Governing Body of the I. L. O. and these resolutions were afterward submitted to and approved by the conference.

The committee on women's and children's work, under the chairmanship of Miss Miller, discussed, among other questions, the minimum wage, hours of work (including night work), and protection before and after childbirth. Its findings also were incorporated in resolutions addressed to the Governing Body of the I. L. O.; and these, too, were submitted to the conference and approved by it.

In submitting to the conference a resolution urging the International Labor Office to make special studies in connection with immi-

gration from Europe to America, Dr. Alejandro Unsain, Argentine Government delegate, said that this problem was of great and almost overwhelming importance for most countries of the American Continent. "Densely populated Europe", he said, "has an excess of population which will find a suitable outlet on the sparsely populated American Continent. Europe and America are more or less like communicating tubes, and what is in excess in one of them will flow into the other quite naturally if it is allowed to do so." When the resolution came before the conference for its approval, however, Government representatives of Brazil and Bolivia announced that their Governments intended to retain complete freedom of action with regard to immigration. The resolution was adopted with these reservations.

The resolution on nutrition, submitted by the Chilean Government delegates, contained possible bases for a policy intended to bring about an improvement in nutrition; and urged the establishment by governments of technical commissions to assist them with measures of nutrition policy, as well as the adoption so far as possible of international health legislation on nutrition questions.

The resolution on unemployment requested the Governing Body of the I. L. O. to study the conditions and extent of unemployment in the countries of the American Continent and prepare a technical report on the social aspects of the solutions adopted for this problem in the American States.

The resolution on the labor of native races, also submitted by the Peruvian Government delegates, asked the Governing Body to instruct the International Labor Office to make a special study of this problem and consider the possibilities of international action leading to practical results. Before this resolution was drafted, Rosendo Naula, Ecuadorean workers' delegate; Rafael Burgo, Colombian workers' delegate; and Felipe Ortiz, Bolivian workers' delegate, all denounced the conditions under which Indian workers were compelled to live and labor in their respective countries.

The resolution on the truck system, submitted by the workers' group, asked the Governing Body to consider and study the questions of insuring that wages shall be paid in cash, and of supervising the truck stores, with a view to eliminating abuses of the truck system in American countries. It asked, also, that the Governing Body consider the questions of creating ministries of labor in countries where they do not exist, and of creating and extending central bureaus of social statistics.

The resolution on agricultural employment, submitted by the Mexican Government delegates, asked that the International Labor Office study the possibility of carrying out an inquiry among the Governments of all American countries concerning the form, motives

periodicity, and scope of the various statistics concerning agricultural work already in existence; and also concerning the possibility of each government's extending and coordinating, internationally, such statistics in regard to agricultural work, including crop raising and cattle breeding.

The resolution concerning relations of the International Labor Organization was a composite of resolutions submitted by Mr. Enrique Sandoval, Cuban Government delegate; Dr. Unsain, Argentine Government delegate; and the workers' group. It asked the Governing Body of the I. L. O. to consider the advisability of convening other regional conferences in America, of increasing the number of American officials and technical experts in the International Labor Office, and of increasing the circulation of I. L. O. documents in the languages of the American Continent. It asked also that these be made available at popular prices.

Mr. Harold B. Butler, director of the I. L. O., in his final address to the conference, drew attention to some of its more salient features. Discussing the tasks of the future, he said:

> On this point the conference has clearly shown the way in which inter-American collaboration can be strengthened by the work of the International Labor Organization. Four principal points have been brought up. The first is that there should be further American conferences of this kind. The success which has been obtained on this occasion is, I think, the best indication that this should not be the last American conference. Secondly, the Office undoubtedly requires strengthening as regards its American personnel, as regards American representation on its technical committees, and by increasing the number of correspondents of the Office in American countries. Then there is a question of publications in the languages of the American Continent. There, too, I think a great deal needs to be done and as far as I am concerned I shall do everything I can to insure that there is far more published in Spanish and in Portuguese than has been the case in the past. We shall also try not to forget the suggestion made that publications should be issued at popular prices, so as to bring them within the reach of everybody. Finally, there are suggestions for intensifying research on problems of special interest to America, and in that connection four very important and far-reaching questions have been raised. The first is that of native labor, the second of immigration, and I hope on these two questions, at any rate, the Office will succeed in carrying out a personal inquiry in the course of the present year. Then there is the question of the truck system, put forward by the Argentine delegation, and that of agricultural conditions, which is perhaps the most far-reaching and difficult of all these questions.
>
> We shall do our best to take up these questions one by one and try to throw some light on them; of course, with the assistance and collaboration of the countries concerned, without whom we can do very little. In addition to these regional questions, a great deal of light has also been thrown from an American standpoint on a number of other questions of a general character such as unemployment, the minimum wage, family allowance, and nutrition. The last problem is one of a universal character, but I think the discussions that have taken place on it here will prove of great assistance in dealing with it on a universal plane.

LABOR TURN-OVER

Labor Turn-Over in Manufacturing Establishments, December 1935

A FURTHER tapering off of the accession rate and a moderate rise in the separation rate were the outstanding features of the Bureau of Labor Statistics' monthly survey of labor turn-over in manufacturing industries for December. The accession rate for the month was 3.30 per 100 employees, as against 3.63 in November. At the same time, the total separation rate rose from 3.55 to 3.76 per 100 employees. The increased separations in December were due entirely to an advance in the lay-off rate. Both the quit and discharge rates were lower than in the month preceding.

For 1935 as a whole, as compared with the year 1934, both the separation rate and the accession rate show a moderate decline of about the same magnitude.

All Manufacturing

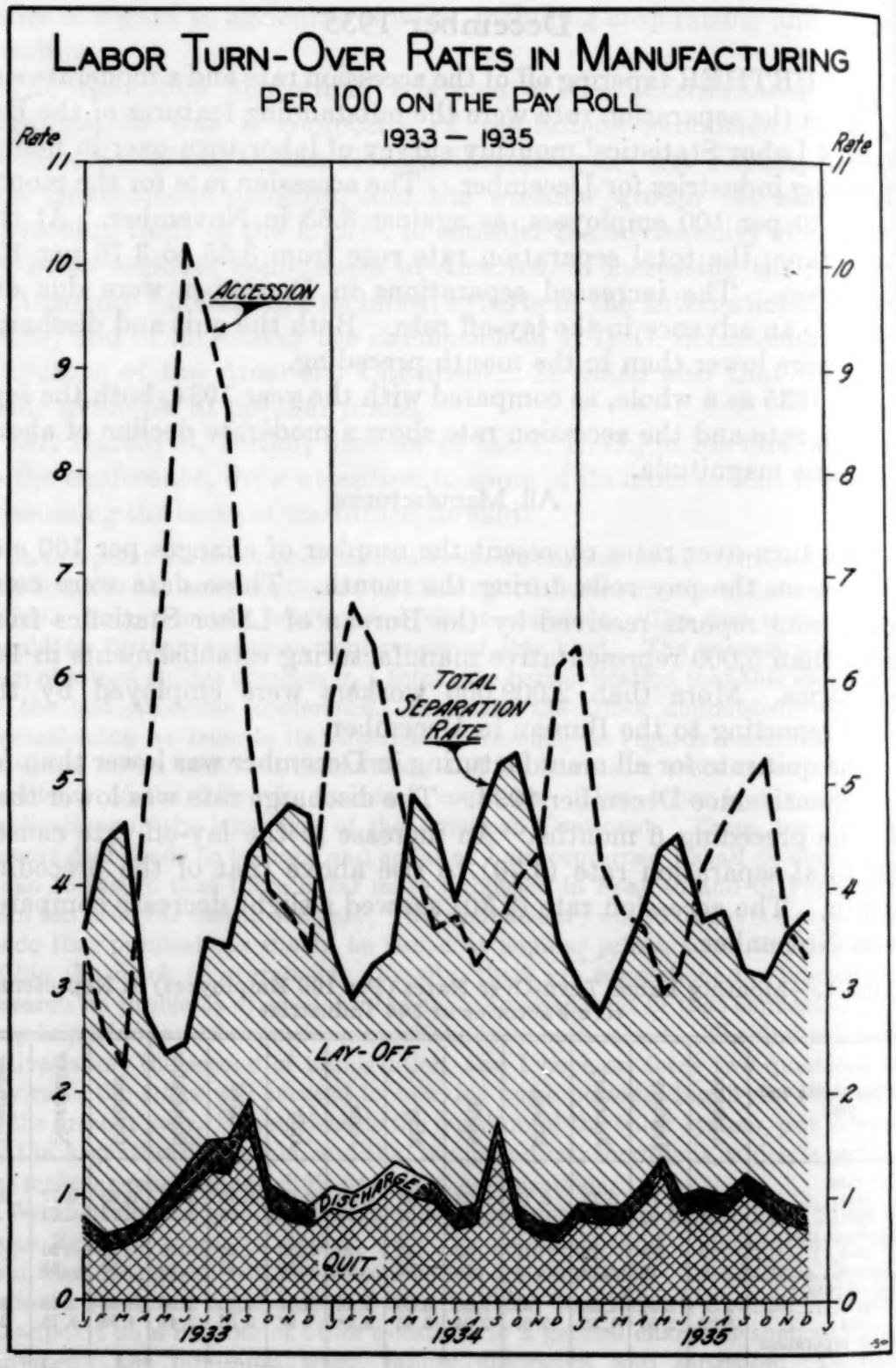
THE turn-over rates represent the number of changes per 100 employees on the pay rolls during the month. These data were compiled from reports received by the Bureau of Labor Statistics from more than 5,000 representative manufacturing establishments in 144 industries. More than 2,000,000 workers were employed by the firms reporting to the Bureau in December.

The quit rate for all manufacturing in December was lower than for any month since December 1934. The discharge rate was lower than for the preceding 6 months. An increase in the lay-off rate caused the total separation rate (3.76) to rise above that of the preceding month. The accession rate (3.30) showed a slight decrease compared with November.

Table 1.—Monthly Labor Turn-Over Rates (Per 100 Employees) in Representative Factories in 144 Industries

Class of rate and year	Average	January	February	March	April	May	June	July	August	September	October	November	December
Quit rate:													
1935	0.86	0.76	0.73	0.75	0.93	1.21	0.83	0.90	0.86	1.05	0.89	0.77	0.69
1934	.89	.90	.85	.93	1.11	1.01	.94	.70	.75	1.55	.73	.62	.58
Discharge rate:													
1935	.19	.18	.18	.17	.20	.17	.20	.20	.21	.19	.21	.20	.18
1934	.19	.18	.19	.21	.23	.22	.18	.19	.19	.16	.19	.15	.15
Lay-off rate: [1]													
1935	2.51	2.10	1.88	.32	2.60	3.00	3.46	2.57	2.70	1.95	2.03	2.58	2.89
1934	3.02	2.35	1.85	2.08	2.04	3.65	3.48	2.96	3.56	3.41	4.38	3.78	2.72
Total separation rate:													
1935	3.56	3.04	2.79	3.24	3.73	4.38	4.49	3.67	3.77	3.19	3.13	3.55	3.76
1934	4.10	3.43	2.89	3.22	3.38	4.88	4.60	3.85	4.50	5.12	5.30	4.55	3.45
Accession rate:													
1935	4.17	6.33	4.23	3.79	3.63	3.01	3.18	4.17	4.60	4.95	5.23	3.63	3.30
1934	4.74	5.81	6.71	6.33	5.18	4.19	3.58	3.71	3.24	3.61	4.09	4.32	6.14

[1] Including temporary, indeterminate, and permanent lay-offs.


LABOR TURN-OVER RATES IN MANUFACTURING
PER 100 ON THE PAY ROLL
1933 — 1935
Rate
Rate
11
10
9
8
7
6
5
4
3
2
1
0
ACCESSION
TOTAL SEPARATION RATE
LAY-OFF
DISCHARGE
QUIT
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J
1933
1934
1935

Twelve Industries

REPORTS received from representative plants for 12 industries employing at least 25 percent of the workers in each industry, as measured by the 1933 Census of Manufactures make possible special tabulations for these industries in table 2.

Slaughtering and meat-packing showed the highest accession rate for any of the 12 industries, and iron and steel the lowest. The automotive industry registered the highest quit rate; furniture the lowest. Three industries—automobiles, bricks, and sawmills—showed the highest discharge rates and men's clothing the lowest. Due to seasonal curtailment, cigars and cigarettes indicated the highest lay-off and total separation rates. The iron and steel industry reported the lowest lay-off and total separation rates.

Table 2.—Monthly Turn-Over Rates (Per 100 Employees) in Specified Industries

Class of rates	December 1935	November 1935	December 1934	December 1935	November 1935	December 1934	December 1935	November 1935	December 1934
	Automobiles			Boots and shoes			Bricks		
Quit rate	1.15	1.42	1.31	0.62	0.44	0.68	0.55	0.67	0.51
Discharge rate	.30	.33	.33	.15	.15	.21	.30	.13	.16
Lay-off rate	2.35	2.85	2.27	1.95	3.22	2.23	8.05	6.13	13.10
Total separation rate	3.80	4.60	3.91	2.72	2.81	3.12	8.90	6.93	13.77
Accession rate	4.67	7.89	27.48	4.60	2.16	5.71	4.45	5.31	8.02
	Cigars and cigarettes			Cotton manufacturing			Foundries and machine shops		
Quit rate	0.89	1.00	(1)	0.83	1.11	0.78	0.57	0.75	0.45
Discharge rate	.09	.17	(1)	.20	.25	.24	.23	.25	.12
Lay-off rate	16.56	1.38	(1)	3.52	2.48	2.31	1.97	1.65	2.37
Total separation rate	17.54	2.55	(1)	4.55	3.84	3.33	2.77	2.65	2.94
Accession rate	1.99	1.79	(1)	4.16	4.17	4.01	3.13	4.51	6.02
	Furniture			Iron and steel			Men's clothing		
Quit rate	0.45	0.64	0.31	0.71	0.79	0.37	0.52	0.77	0.42
Discharge rate	.21	.29	.22	.10	.08	.06	.05	.05	.06
Lay-off rate	6.00	3.31	6.01	1.00	1.35	1.36	3.83	2.66	5.02
Total separation rate	6.66	4.24	6.54	1.81	2.22	1.79	4.40	3.48	5.50
Accession rate	2.14	2.38	4.01	1.69	2.51	2.06	3.63	2.74	3.02
	Petroleum refining			Sawmills			Slaughtering and meat packing		
Quit rate	0.49	0.39	(1)	1.04	1.33	0.94	0.67	0.82	0.75
Discharge rate	.09	.12	(1)	.30	.33	.28	.17	.26	.26
Lay-off rate	2.39	2.27	(1)	7.45	6.53	7.64	7.72	6.47	13.74
Total separation rate	2.97	2.78	(1)	8.79	8.19	8.86	8.56	7.55	14.75
Accession rate	2.52	1.68	(1)	5.32	4.67	5.30	6.05	8.28	9.10

[1] Rates not available.

WAGES AND HOURS OF LABOR

Entrance Rates Paid to Common Labor, July 1935[1]

THE hourly entrance rate of pay for persons engaged in unskilled common labor in the United States averaged 45.1 cents in July 1935. This is disclosed by the tenth annual survey of common labor by the Bureau of Labor Statistics, which covered adult male workers [2] in 13 important industries.

Varying Usages of Term "Common Labor"

THERE is no standard definition of the term "common labor", its meaning varying considerably from one plant to another. Some employers define common labor in terms of relative skill. They single out the skilled workers—those required to go through a stated period of apprenticeship or training—and assign to them definite occupational designations. The semiskilled and unskilled workers, who need little or no training for their work, are grouped together and designated on the pay roll as "laborers." In such plants the definition of common labor becomes a very broad one, as the tendency is to include in that term even the great body of machine operators who are semiskilled. Other employers define common labor in terms of whether or not the employee requires any training at all; in other words, they include under that designation only workers who perform certain tasks with no more than specific instructions from the foreman. Still other employers look upon common labor from the standpoint of the exact duties that the man performs. Hence, as soon as a person is assigned to a particular job, however simple, he is no longer regarded as a common laborer. At the same time a worker who has no specific job but is shifted around from one unskilled task to another is considered a common laborer. Still other employers make their classification from the standpoint of physical strength; thus, work based on manual force, with duties not requiring the use of machines, is looked upon as such labor.

In view of this variety of conceptions, it was necessary for the Bureau to formulate its own definition of the term. Accordingly, in

[1] Prepared by Paul H. Moncure, under the direction of Jacob Perlman, chief of Division of Wages, Hours, and Working Conditions.

[2] The number of females doing common labor is very limited, and it has been thought advisable to exclude them from the scope of this investigation. Most unskilled woman workers are engaged in sweeping, dusting, cleaning, etc.

its studies the Bureau is using the term to mean "workers who perform physical or manual labor of general character requiring little skill or training", thus excluding machine operators and semiskilled employees.

Survey Limited to Common Laborers Receiving Entrance Rate

IN THIS survey the Bureau limited the inquiry entirely to the entrance rate of pay, which is the amount paid when the worker is first hired. In many plants all common laborers receive a single rate, which is, of course, the entrance rate. On the other hand, in some plants there are several entrance rates for common labor, which may vary according to conditions of work, race of employee, etc. Among the conditions of work that affect the entrance rate of pay are the degree of hazard involved in the job, the heaviness of the work, the unpleasantness of the surrounding conditions, and the degree to which the worker is exposed to the weather. For example, men hired to do excavation work where explosives are used are paid a higher rate than the average. This is also true of jobs in which the worker comes in contact with acids, dust, unusual heat, high humidity, etc. Finally, outside laborers usually receive higher rates than inside laborers. Also, in certain localities, colored workers are paid less than white workers even though doing the same kind of work.

No attempt was made in the survey to cover common labor receiving rates higher than those received at entrance,[3] except that this year, for the first time, the Bureau asked employers to state also the number of those working at a higher rate than that received at entrance. In past surveys the questionnaire mentioned one "common labor" class only. It was found that establishment of the double classifications of common labor "at entrance rate" and "above entrance rate" resulted in a considerable reduction in the net number of workers reported in this survey. Evidently, in many cases employers previously have included in their reports all common laborers, whether they were working at the actual entrance rate or at higher rates.

The survey this year covered 119,681 employees at entrance rates. Sixty-six thousand eight hundred and thirty-four other employees were reported who were being paid more than the entrance rate. While the total number of employees for whom reports were received is greater than the number covered in the 1934 survey (173,188 employees), the present analysis is confined to the 119,681 employees found working at the entrance rate in July 1935.

[3] In certain plants increases are granted later for length of service, skill, etc. As regards length of service, it was found that in some plants the common laborer's pay was raised a few cents after a probationary period to determine whether or not to retain the man on the job. Although skill in the usual sense plays a very small part in connection with common labor, capacity is often taken into consideration in fixing the pay of the worker above the entrance rate.

As in former surveys, this study covered 13 industries, chosen because they employ a large number of common laborers. These include the general contracting industry, in which employment of common laborers is particularly widespread, and 12 manufacturing industries (including public utilities). These 12 industries also supply the Bureau with monthly data concerning employment and pay rolls.

In summarizing the data, averages were computed for industries and geographic divisions and for the United States as a whole. These averages were obtained by weighting the entrance rates reported by the number receiving them in various plants. In each case high and low figures are also presented, thus giving the range of the rates. Also, a frequency tabulation was made, which shows the distribution of the workers according to the entrance rates of pay.

Wage Distribution of Common Laborers, by Regions

ALTHOUGH 45.1 cents is the average hourly entrance rate for the 13 industries in the country as a whole, the figures found by the survey ranged from a low of 14.5 to a high of 95 cents. A picture of the distribution of rates between these extremes may be had from table 1. Very few workers received an entrance wage of less than 22.5 cents or more than 77.5 cents per hour. About one-sixth earned 22.5 and under 37.5 cents per hour, while another sixth received 52.5 and under 77.5 cents per hour. However, the remaining workers, comprising two-thirds of the total, received 37.5 and under 52.5 cents per hour.

Table 1.—Distribution of Adult Male Workers Engaged in Common Labor According to Hourly Entrance Rates in 13 Industries, by Region, July 1935

Hourly entrance rate	United States			North [1]			South [2]		
	Number of laborers	Simple percentage	Cumulative percentage	Number of laborers	Simple percentage	Cumulative percentage	Number of laborers	Simple percentage	Cumulative percentage
Total	119,681	100.0	------	94,481	100.0	------	25,200	100.0	------
Under 17.5 cents	371	.3	0.3	------	------	------	371	1.5	1.5
17.5 and under 22.5 cents	383	.3	.6	------	------	------	383	1.5	3.0
22.5 and under 27.5 cents	5,178	4.3	4.9	140	.1	0.1	5,038	20.0	23.0
27.5 and under 32.5 cents	8,962	7.5	12.4	2,112	2.2	2.3	6,850	27.2	50.1
32.5 and under 37.5 cents	5,900	4.9	17.3	3,411	3.6	5.9	2,489	9.9	60.1
37.5 and under 42.5 cents	29,235	24.5	41.8	23,074	24.5	30.4	6,161	24.5	84.6
42.5 and under 47.5 cents	26,931	22.5	64.3	24,856	26.3	56.7	2,075	8.2	92.8
47.5 and under 52.5 cents	23,585	19.7	84.0	22,397	23.7	80.4	1,188	4.7	97.5
52.5 and under 57.5 cents	6,116	5.1	89.1	5,972	6.3	86.7	144	.6	98.1
57.5 and under 62.5 cents	2,520	2.1	91.2	2,207	2.4	89.1	313	1.2	99.3
62.5 and under 67.5 cents	4,323	3.6	94.8	4,323	4.6	93 7	------	------	99.3
67.5 and under 72.5 cents	663	.6	95 4	663	.7	94.4	------	------	99.3
72.5 and under 77.5 cents	4,944	4.1	99.5	4,756	5.0	99.4	188	.7	100.0
77.5 and under 82.5 cents	93	.1	99.6	93	.1	99.5	------	------	------
82.5 and under 87.5 cents	317	.3	99.9	317	.3	99.8	------	------	------
87.5 cents and over	160	.1	100.0	160	.2	100.0	------	------	------

[1] Includes the following geographic divisions: New England, Middle Atlantic, East North Central, West North Central, Mountain, and Pacific.
[2] Includes the following geographic divisions: South Atlantic, East South Central, and West South Central.

The degree of concentration is more marked when the rates are analyzed on a regional basis, as in table 2. This table indicates the

existence of two wage levels with respect to hourly entrance rates. One of these levels is found in the South Atlantic, East South Central, and West South Central divisions, which roughly correspond to the "South" as generally classified in the codes under the National Recovery Administration. Here the average entrance rate per hour was 34.3 cents, with a range from 14.5 to 75 cents. Separating this territory into its three divisions, the average hourly entrance rate amounted to 32.1 cents in the West South Central States, comprising Arkansas, Louisiana, Oklahoma, and Texas. It was somewhat higher (34.7 cents) in the East South Central States, which include Alabama, Kentucky, Mississippi, and Tennessee, and was highest (35.9 cents) in the South Atlantic States of Delaware, Maryland, District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia, and Florida. The high level in this last group is probably due to the inclusion of Delaware, Maryland, West Virginia, and the District of Columbia, which are ordinarily classed as northern territory and where higher wages prevail.

The other wage level appears in the remainder of the United States, which covers the geographical divisions of New England, Middle Atlantic, East North Central, West North Central, Mountain, and Pacific. This territory has been generally classified in the N. R. A. codes as the "North." The average hourly entrance rate for the workers in this territory as a whole was 48.0 cents, and ranged from a low of 22.5 to a high of 95.0 cents. The highest average entrance rate per hour, 49.7 cents, was found in the Middle Atlantic States. The next highest figure appeared in the Mountain States, where it amounted to 48.5 cents. In the East and West North Central States the average hourly entrance rate was 48.0 cents. A slightly lower figure was reported for the Pacific States, where the average entrance rate per hour was 47.3 cents, while the lowest average, namely 44.6 cents per hour, was found in the New England area. In other words, the low-paid areas in the northern territory seem to be concentrated along the Pacific Coast and in the New England States.

Table 2.—Hourly Entrance Rates of Adult Male Workers Engaged in Common Labor in 13 Industries, by Geographic Division, July 1935

Region and geographic division	Number of laborers	Hourly entrance rates (in cents)		
		Average	Low	High
Total United States	119,681	45.1	14.5	95.0
Total North	94,481	48.0	22.5	95.0
New England	7,539	44.6	28.0	70.0
Middle Atlantic	23,141	49.7	30.0	93.8
East North Central	35,034	48.0	22.5	95.0
West North Central	12,530	48.0	25.0	78.8
Mountain	3,331	48.5	22.5	65.0
Pacific	12,906	47.3	24.3	75.0
Total South	25,200	34.3	14.5	75.0
South Atlantic	10,993	35.9	14.5	55.0
East South Central	5,094	34.7	23.0	75.0
West South Central	9,113	32.1	15.0	58.0

An examination of the distribution of laborers according to hourly entrance rates for the North, which appears in table 1, indicates that nearly 75 percent of the workers earned between 37.5 and 52.5 cents per hour. There were no laborers reported as receiving less than 22.5 cents per hour, while those paid 22.5 and under 27.5 cents per hour amounted to only one-tenth of 1 percent. There were 5.8 percent earning between 27.5 and 37.5 cents per hour. About 19 percent were found in the classes paid between 52.5 and 77.5 cents per hour. Only 0.6 percent of the workers received 77.5 cents and over per hour.

An entirely different picture is obtained from an inspection of the distribution covering the South, which contains two points of concentration. Only 3 percent of the laborers earned less than 22.5 cents per hour. The first cencentration appears in the classes of 22.5 and under 27.5 and 27.5 and under 32.5 cents per hour, which include, respectively, 20.0 and 27.2 percent of the workers. This is followed by a reduction to 9.9 percent in the next class, namely 32.5 and under 37.5 cents per hour. The succeeding class, of 37.5 and under 42.5 cents per hour, contains the second point of concentration, the percentage here being 24.5. The remaining workers, 15.4 percent, are distributed over a range of classes from 42.5 and under 77.5 cents, there being no persons reported as receiving an hourly rate in excess of the latter figure.

The existence of a bimodal distribution in the South may be explained in terms of both race [4] and industry. The first concentration probably includes many of the Negro workers. These are employed in practically all industries, but they are found particularly in the lumber industry, which reported the lowest average hourly entrance rate in the South. The second concentration doubtless includes many of the white workers, who are employed especially in large numbers in petroleum refining and in the iron and steel industry which showed the highest average entrance rates per hour in the South. (See table 4.)

Average Rates by Industry

AN EXAMINATION of the average hourly entrance rates by industry, as shown in table 3, indicates that the highest rate was paid in automobile manufacturing, where 61.2 cents per hour was reported for common labor. Next in order was petroleum refining, where the rate was 52.2 cents. The lumber industry (sawmills) reported the lowest average hourly entrance rate, namely 35.6 cents, and the

[4] The questionnaire called for separate data with respect to colored and white laborers. Only a relatively small number of employers made this separation, however, and in most cases the entrance rate paid was the same for both races. It is well known, nevertheless, that in numerous plants Negro and white workers are not employed together, and that as a rule those employing Negro workers pay less than the ones using white labor only.

second lowest figure, or 38.2 cents, was in the brick, tile, and terra-cotta industry. In the remaining manufacturing industries the average hourly entrance rate varied from 40 cents in foundries and machine shops to 45.7 cents in slaughtering and meat packing. The average found in general contracting was 48.1 cents per hour, which may be compared with 44.5 cents in all manufacturing industries combined.

Table 3.—Hourly Entrance Rates of Adult Male Workers Engaged in Common Labor, and Average Hourly Earnings of All Wage Earners, by Industry, July 1935

Industry	Number of laborers		Hourly entrance rates (in cents)			Average hourly earnings of all wage earners (in cents)[1]
	At entrance rates	At above entrance rates	Average	High	Low	
All industries	119,681	67,002	45.1	95.0	14.5	(2)
Manufacturing industries	97,881	62,994	44.5	80.0	14.5	67.5
Automobile	14,296	6,644	61.2	75.0	35.0	75.7
Brick, tile, and terra cotta	3,451	2,010	38.2	80.0	15.0	45.6
Cement	1,472	574	44.3	60.0	30.0	56.1
Electrical machinery, apparatus and supplies	450	3,552	42.9	60.0	34.0	61.3
Foundry and machine-shop products	7,588	6,358	40.0	62.5	18.0	59.8
Iron and steel	16,245	2,840	44.1	50.0	25.0	65.7
Leather	2,291	3,524	41.9	57.5	26.0	55.8
Lumber (sawmills)	12,422	5,599	35.6	50.0	14.5	44.6
Paper and pulp	16,343	11,383	41.1	55.0	23.0	53.1
Petroleum refining	3,701	3,150	52.2	65.0	36.9	81.3
Public utilities [3]	15,723	7,076	42.0	68.0	15.0	73.8
Slaughtering and meat packing	3,899	10,284	45.7	50.0	30.0	55.7
General contracting [4]	21,800	4,008	48.1	95.0	25.0	(2)

[1] From Monthly Labor Review, October 1935: Trend of Employment and Pay Rolls.
[2] Not available.
[3] Includes street railways, gas works, and electric power and light plants.
[4] Includes building, highway, public works, and railroad construction.

From reports on employment and pay rolls the Bureau computes averages of actual earnings per hour of all wage earners in each of the above manufacturing industries, and it is possible to compare these figures with the average hourly entrance rates paid to common labor in each case. In doing this, it should be remembered that the average hourly earnings for all wage earners include those receiving the entrance rate, so that comparison is made between the common laborers and the workers in the industry as a whole. It will be seen that the average hourly entrance rate of common laborers is very close to the average hourly earnings of all wage earners in those industries in which a relatively large proportion of common laborers are employed, notably brick, tile, and terra cotta, lumber (sawmills), and slaughtering and meat packing. On the other hand, in those industries where the proportion of common laborers is relatively less, the average entrance rate per hour is considerably different from the average hourly earnings of all workers. This is particularly true

of such industries as foundries and machine shops, iron and steel, petroleum refining, and public utilities.

In each industry covered the average hourly entrance rate was considerably higher in the North than in the South, which may be seen by an examination of table 4. The differential varied from 5 cents in iron and steel to 19.5 cents in the lumber industry (sawmills).

Table 4.—Average Hourly Entrance Rates of Adult Male Workers Engaged in Common Labor, by Industry and Region, July 1935

Industry	Average hourly rates (in cents)		
	United States	North [1]	South [2]
All industries	45.1	48.0	34.3
Manufacturing industries	44.5	47.5	33.8
Automobile	61.2	61.1	[3]
Brick, tile, and terra cotta	38.2	40.5	31.6
Cement	44.3	46.7	36.2
Electrical machinery, apparatus and supplies	42.9	42.9	[3]
Foundry and machine shop products	40.0	41.2	33.2
Iron and steel	44.1	45.3	40.3
Leather	41.9	44.0	35.4
Lumber (sawmills)	35.6	43.5	24.0
Paper and pulp	41.1	43.1	33.5
Petroleum refining	52.2	56.0	47.2
Public utilities [4]	42.0	45.6	32.7
Slaughtering and meat packing	45.7	46.5	39.2
General contracting [5]	48.1	50.2	37.0

[1] Includes the following geographic divisions: New England, Middle Atlantic, East North Central, West North Central, Mountain, and Pacific.
[2] Includes the following geographic divisions: South Atlantic, East South Central, and West South Central.
[3] Figures omitted, as data cover less than 3 establishments.
[4] Includes street railways, gas works, and electric power and light plants.
[5] Includes building, highway, public works, and railroad construction.

The average hourly entrance rates, together with the low and high figures for each industry by geographic divisions, are shown in table 5.

Table 5.—Hourly Entrance Rates of Adult Male Workers Engaged in Common Labor, by Industry and Geographic Division, July 1935

Industry	Geographic division [1]								
	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Automobile:	*Ct.*	*Ct.*	*Ct.*	*Ct.*	*Ct.*	*Ct.*	*Ct.*	*Ct.*	*Ct.*
Low	-------	35.0	38.0	47.0	[2]	[2]	-------	-------	[2]
High	-------	75.0	75.0	75.0	[2]	[2]	-------	-------	[2]
Average	-------	73.3	55.4	67.8	[2]	[2]	-------	-------	[2]
Brick, tile, and terra cotta:									
Low	35.0	33.3	35.0	35.5	20.0	24.0	15.0	30.0	35.0
High	40.0	47.0	80.0	40.0	50.0	39.0	30.0	43.8	50.0
Average	38.1	40.9	40.8	37.8	34.8	32.5	24.0	39.0	42.9

See footnotes at end of table.

Table 5.—Hourly Entrance Rates of Adult Male Workers Engaged in Common Labor, by Industry and Geographic Division, July 1935—Continued

Industry	Geographic division [1]								
	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Cement:	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.
Low	-------	44.0	40.0	43.5	(2)	34.0	30.0	-------	(2)
High	-------	47.0	60.0	55.0	(2)	35.0	40.0	-------	(2)
Average	-------	44.6	45.5	50.3	(2)	34.8	34.8	-------	(2)
Electrical machinery, apparatus, and supplies:									
Low	35.0	40.0	34.0	37.0	(2)	-------	-------	-------	-------
High	51.0	51.0	60.0	40.0	(2)	-------	-------	-------	-------
Average	43.5	42.8	45.7	38.3	(2)	-------	-------	-------	-------
Foundry and machine-shop products:									
Low	36.0	35.0	30.0	37.0	18.0	28.0	27.5	(2)	40.0
High	55.0	50.0	62.5	40.0	41.0	40.0	40.0	(2)	55.0
Average	40.0	41.8	41.1	38.7	32.6	32.9	34.1	(2)	45.0
Iron and steel:									
Low	(2)	35.0	37.0	(2)	25.0	27.5	-------	(2)	38.5
High	(2)	50.0	48.5	(2)	48.5	47.5	-------	(2)	42.0
Average	(2)	45.4	45.6	(2)	41.7	36.0	-------	(2)	41.1
Leather:									
Low	32.0	32.0	30.0	(2)	26.0	-------	-------	-------	(2)
High	57.5	53.8	45.0	(2)	40.0	-------	-------	-------	(2)
Average	51.3	45.5	38.0	(2)	35.4	-------	-------	-------	(2)
Lumber (sawmills):									
Low	(2)	(2)	27.5	33.5	14.5	24.0	15.0	42.5	35.0
High	(2)	(2)	42.5	41.8	32.0	29.5	24.0	50.0	50.0
Average	(2)	(2)	32.2	39.7	25.0	24.1	23.6	48.7	46.4
Paper and pulp:									
Low	32.5	37.0	32.0	38.0	30.0	23.0	30.0	-------	45.0
High	49.0	55.0	52.0	45.0	50.0	37.5	36.0	-------	50.0
Average	43.0	42.9	42.2	41.9	33.5	33.6	33.4	-------	47.6
Petroleum refining:									
Low	-------	52.0	52.0	48.0	(2)	(2)	38.0	50.0	47.0
High	-------	61.9	56.0	53.0	(2)	(2)	58.0	50.0	65.0
Average	-------	58.3	52.5	49.3	(2)	(2)	47.3	50.0	57.7
Public utilities: [3]									
Low	28.0	31.5	22.5	25.0	15.0	24.0	20.0	22.5	24.3
High	67.5	66.0	68.0	50.0	50.0	40.0	40.0	62.5	60.0
Average	47.8	46.9	50.0	38.4	35.4	31.7	29.0	44.4	42.2
Slaughtering and meat packing:									
Low	(2)	42.5	40.0	40.0	(2)	-------	30.0	(2)	44.0
High	(2)	50.0	47.5	48.5	(2)	-------	42.0	(2)	47.5
Average	(2)	44.1	45.0	47.3	(2)	-------	39.2	(2)	46.9
General contracting: [4]									
Low	40.0	35.0	35.0	30.0	25.0	25.0	25.0	40.0	40.0
High	70.0	93.8	95.0	78.8	55.0	45.0	40.0	65.0	75.0
Average	47.5	50.0	51.7	46.5	37.7	36.8	35.9	54.3	57.1

[1] New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. Middle Atlantic: New Jersey, New York, Pennsylvania. East North Central: Illinois, Indiana, Michigan, Ohio, Wisconsin. West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia. East South Central: Alabama, Kentucky, Mississippi, Tennessee. West South Central: Arkansas, Louisiana, Oklahoma, Texas. Mountain: Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming. Pacific: California, Oregon, Washington.

[2] Figures omitted, as data cover less than 3 establishments.

[3] Includes street railways, gas works, and electric power and light plants.

[4] Includes building, highway, public works, and railroad construction.

Trend of Rates, 1926 to 1935

As ALREADY noted, the Bureau has collected data on entrance rates for common labor annually for the last 10 years. Table 6 shows the average entrance rates of pay per hour on an annual basis since 1926.

Although these figures are not strictly comparable from year to year,[5] they may nevertheless be used to trace the general trend in the data during the entire period. In all industries combined, the highest average rate was paid in 1928. After that there was a gradual decline until 1933. Both 1934 and 1935 showed a rise, and in 1935 the average rate was slightly above the peak rate of 1928. The same is true of the movements in the average covering the manufacturing industries. In general contracting, however, the highest point in the average was attained in 1929, after which there was a continuous decline until 1933. Although there has been an increase since then, the 1935 figure was still slightly below the former high level.

Table 6.—Average Hourly Entrance Rates of Adult Male Workers Engaged in Common Labor in 13 Industries for July of Each Year, 1926 to 1935

Year	Average hourly entrance rates (in cents)			Year	Average hourly entrance rates (in cents)		
	All industries	Manufacturing industries [1]	General contracting [2]		All industries	Manufacturing industries [1]	General contracting [2]
1926	42.8	40.9	47.1	1931	41.2	40.7	42.6
1927	42.6	40.4	48.2	1932	38.1	37.6	39.9
1928	44.9	44.1	47.4	1933	35.0	34.2	38.3
1929	43.7	42.1	48.3	1934	43.0	42.3	45.5
1930	43.1	41.6	47.0	1935	45.1	44.5	48.1

[1] Includes public utilities.
[2] Includes building, highway, public works, and railroad construction.

Average Annual Earnings in Ohio, 1933 and 1934[6]

REPORTS from practically all establishments in Ohio employing three or more persons and falling within the general industry groups of manufactures, wholesale and retail trade, service, transportation and public utilities (except interstate transportation and activities of Government units), construction, and agriculture show

[5] This is due to several reasons: (1) In order to get the widest possible coverage each year, the averages were not computed on the basis of identical establishments; (2) different weights, in terms of the number of workers actually receiving the various entrance rates, were used each year; (3) it has been found that in past years many establishments included other common laborers among those receiving the entrance rates, which gave to the entrance rates of those establishments an undue weight.

In order to reduce the data to a basis of strict comparability, it would be necessary to develop an index number in the following manner: First, calculate link relatives from averages computed each year by using identical establishments and weighting the entrance rates for both years by the number of workers *actually* receiving these rates in the current year; and, second, weld the links together into a continuous chain with a fixed base. Rough calculations for 1934 and 1935 indicate that the average would not, however, be greatly changed by a refinement of method.

[6] By Fred C. Croxton, Columbus, Ohio, and Frederick E. Croxton, Columbia University. A series of articles on Average Annual Wage and Salary Payments in Ohio, published in the Monthly Labor Review beginning in January 1934, covered the years 1916 to 1932 for most industries, and 1918 to 1932 for construction and for all industries combined. A second series beginning in the Labor Review for April 1935 covered 1929 to 1933. A third series beginning with this issue will cover 1933 and 1934. The first series was also published in U. S. Bureau of Labor Statistics Bul. No. 613. Average Annual Wage and Salary Payments in Mining and Quarrying in Ohio were published in the Labor Review for November 1935 and February 1936. The 2 articles cover the years 1916 to 1934. Fluctuation of employment in Ohio is shown in the Monthly Labor Review for January 1936. In that article the group "all industries" includes mining and quarrying.

average annual wage and salary payments of $1,089 in 1934, as compared with $997 in 1933 and $1,480 in 1929.

The reports show average annual payments of $1,047 in 1934, $938 in 1933, and $1,457 in 1929 to the occupation group "wage earners"; $1,374 in 1934, $1,336 in 1933, and $1,677 in 1929 to bookkeepers, stenographers, and office clerks; and $971 in 1934, $917 in 1933, and $1,374 in 1929 to salespeople (not traveling).

Considering all employees (exclusive of superintendents and managers), there were increases from 1933 to 1934 of 125,602, or 14.7 percent, in average number employed; of $215,123,127, or 25.2 percent, in total wage and salary payments; and of $92, or 9.2 percent, in average annual wage and salary payments. A comparison of 1934 with 1929 shows decreases of 298,398 in average number employed, of $825,272,812 in total wage and salary payments, and of $391 in average annual wage and salary payments.

Considering all occupation groups combined, except superintendents and managers, average annual wage and salary payments in 1934 were higher than in 1933 in each of the six general industry groups included in this article and also higher than in 1932 in manufactures, transportation and public utilities, and all industries combined.

Sources and Scope of Study

For details regarding employers' reports from which average wage and salary payments in this study were computed, see Monthly Labor Review, April 1935 (pp. 986, 987).

The approximate completeness of the material included in the Ohio reports can be seen by a comparison of the Ohio reports with certain reports issued by the United States Bureau of the Census.

The United States Biennial Census of Manufactures canvasses manufacturing concerns reporting a "value of product" for the year of $5,000 or more. The Ohio reports, on the other hand, include only a few establishments employing fewer than three persons. The census figures therefore include a number of small manufacturing establishments not requested to furnish information to the Ohio Division of Labor Statistics.

In table 1 the census and the Ohio reports are compared for each of the years in which the census made its biennial report during the period 1929 to 1935.[2] In each of the 3 years the establishments covered by the Ohio Division of Labor Statistics included more than 95 percent of the wage earners reported by the census and more than 96 percent of the total wage payments.

[1] For comparison with earlier years see Monthly Labor Review, January 1934 (pp. 144, 146, and 153).

Table 1.—Comparison of Coverage of Census Reports[1] on Manufactures in Ohio and of Reports (Manufactures Only) of Ohio Division of Labor Statistics, 1929, 1931, and 1933

Year	Number of establishments		Number of wage earners (average)			Total wage and salary payments to wage earners		
	United States census	Ohio reports	United States census	Ohio reports	Percent Ohio coverage forms of census coverage	United States census	Ohio reports	Percent Ohio coverage forms of census coverage
1929	11,800	10,035	740,240	718,108	97.0	$1,101,158,230	$1,076,213,730	97.7
1931	9,826	9,683	506,109	482,782	95.4	592,134,643	571,917,215	96.6
1933	8,101	8,755	472,699	449,378	95.1	439,752,673	426,727,589	97.0

[1] Press release, U. S. Bureau of the Census, May 27, 1935. This release revised 1929 and 1931 figures by deducting figures for two comparatively small industries which were not canvassed in 1933.

Table 2 shows data relating to employment, and wage and salary payments in Ohio, for all industries combined (except mining and quarrying), and for each of the general industry groups—construction, agriculture, manufactures, wholesale and retail trade, service industries, and transportation and public utilities. Interstate transportation and activities of governmental units are not included. The years covered are 1933 and 1934. Data for earlier years were published in the Monthly Labor Review for April 1935 and in Bulletin No. 613 of the United States Bureau of Labor Statistics.

The annual reports made to the Ohio Division of Labor Statistics by employers show the number of persons employed on the 15th of each month. The averages shown in this article were computed by dividing the sum of the monthly figures by 12. The average annual wage and salary payment was computed by dividing the total wage and salary payment for the year by the average number of persons employed.

The average annual payments shown in table 2 should not be taken as exact measures but as approximate figures. It should be emphasized that average annual wage and salary payments as here computed do not show full-time earnings, as data concerning part-time and overtime work are not available. Average full-time earnings may be either greater or less than the computed average. Neither do changes in the averages from year to year afford any measure of changes in wage or salary scales, or rates of pay.

In supplying data concerning total wage and salary payments, employers were requested to report total wage and salary payments in dollars, including bonuses and premiums and value of board and lodging furnished. Employers were also instructed not to include salaries of officials. Data, other than total wage and salary payments, are not requested concerning superintendents and managers.

All industries.—The first section of table 2 presents data for all industries combined (agriculture, construction, manufactures, service, wholesale and retail trade, and transportation and public utilities).

The average number of wage earners employed in 1934 was 109,285 greater than in 1933 and 258,860 less than in 1929, total wage and salary payments were $186,044,053 greater than in 1933 and $690,572,763 less than in 1929, and average annual payments $109 higher than in 1933 and $410 lower than in 1929.

The average number of bookkeepers, stenographers, and office clerks employed in 1934 was 11,140 greater than in 1933 and 25,850 less than in 1929, total wage and salary payments were $20,367,622 greater than in 1933 and $86,500,516 less than in 1929, and average annual payments $38 higher than in 1933 and $303 lower than in 1929.

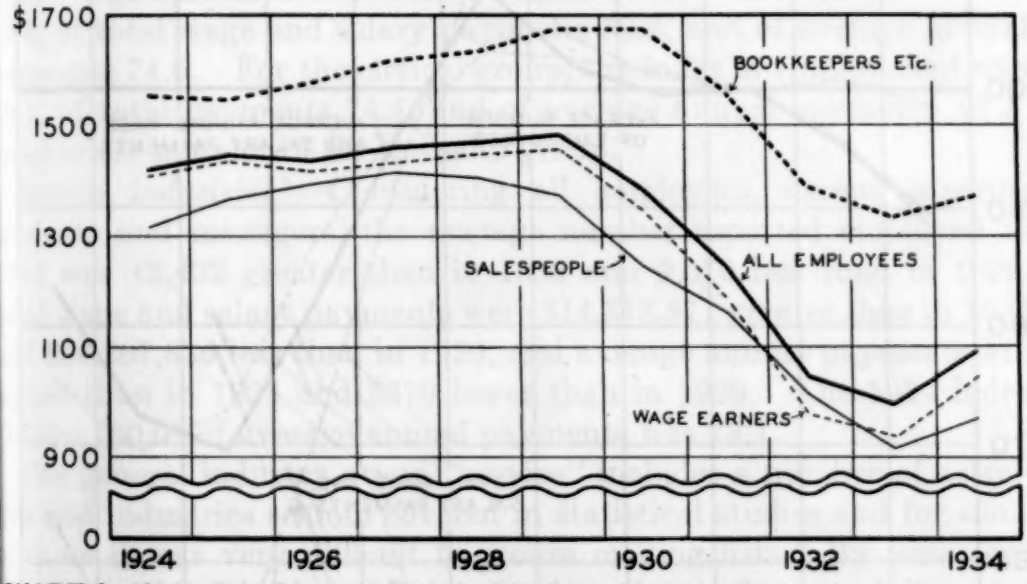


CHART 1.—AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN ALL INDUSTRY GROUPS COMBINED, BY GENERAL OCCUPATION GROUPS, 1924 TO 1934.

The average number of salespeople (not traveling) employed in 1934 was 5,177 greater than in 1933 and 13,689 less than in 1929, total wage and salary payments were $8,711,452 greater than in 1933 and $48,199,533 less than in 1929, and average annual payments $54 higher than in 1933 and $403 lower than in 1929.

Considering the three general occupation groups combined, the average number employed in 1934 was 125,602 greater than in 1933 and 298,398 less than in 1929, total wage and salary payments were $215,123,127 greater than in 1933 and $825,272,812 less than in 1929, and average annual payments $92 higher than in 1933 and $391 lower than in 1929.

For the three general occupation groups combined, the 1934 index (1926=100.0) of employment was 83.4, of total wage and salary payments 63.2, and of average annual payments 75.8.

Charts 1 and 2 show data for all industries combined for the 11 years, 1924 to 1934, superintendents and managers not being included.

Agriculture.—The returns received do not give a complete picture of agriculture for the reason that comparatively few engaged in agriculture in Ohio, other than the larger commercial undertakings, employ as many as three persons. The average number of wage earners reported employed in 1934 was 465 greater than in 1933 and 661 less than in 1929. Total wage and salary payments to wage earners in 1934 were $478,327 greater than in 1933 and $3,400,409 less than in 1929, and average annual payments were $27 higher

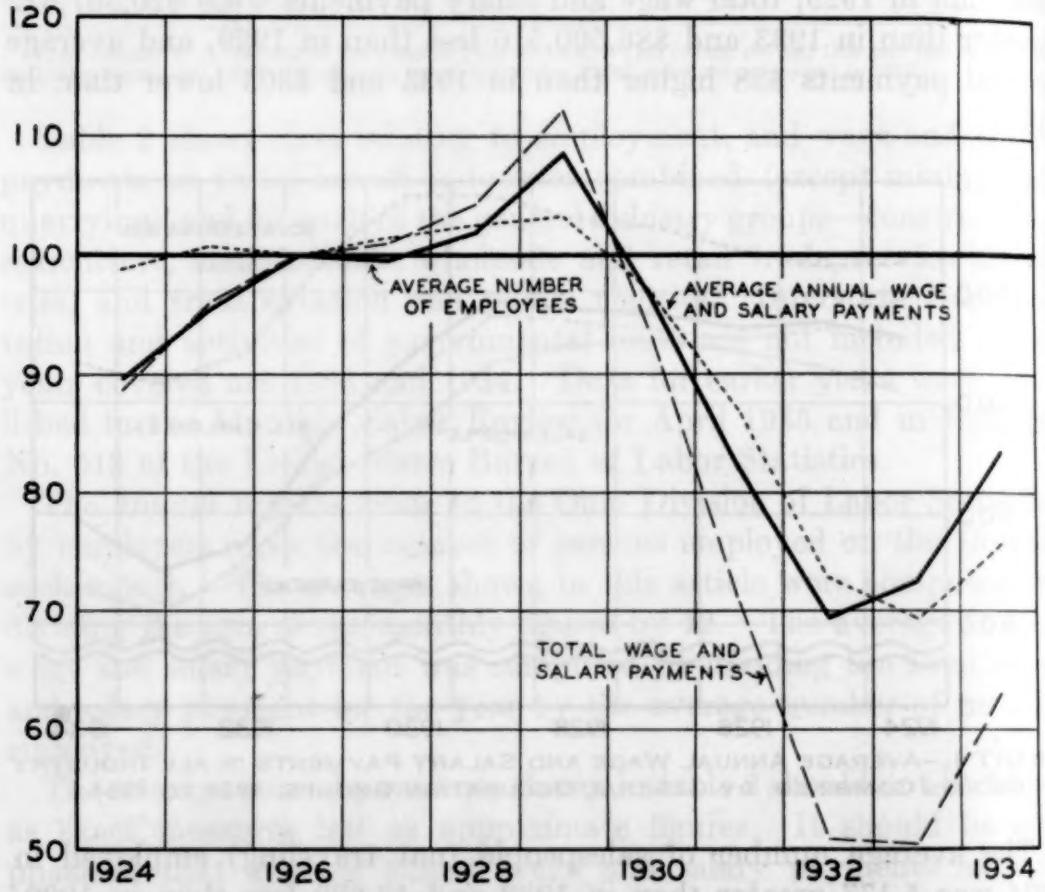


CHART 2.—INDEXES OF AVERAGE NUMBER EMPLOYED AND TOTAL AND AVERAGE ANNUAL WAGE AND SALARY PAYMENTS IN ALL INDUSTRY GROUPS COMBINED, 1924 TO 1934 (1926=100).

than in 1933 and $356 lower than in 1929. Averages are not shown except for the occupations numerically important, and owing to incomplete coverage, indexes were computed only for average annual payments. The index of average annual payments in 1934 was 63.0.

Construction.—The average number of wage earners employed in 1934 was 4,985 greater than in 1933 and 47,814 less than in 1929, total wage and salary payments were $7,517,355 greater than in 1933 and $97,582,066 less than in 1929, and average annual payments $138 higher than in 1933 and $709 lower than in 1929. For wage earners,

the 1934 index (1926=100.0) of employment was 33.3, of total wage and salary payments 19.8, and of average annual payments 59.5. Indexes are not shown except for wage earners.

Manufactures.—The average number of wage earners employed in 1934 was 84,296 greater than in 1933 and 184,434 less than in 1929, total wage and salary payments were $149,763,043 greater than in 1933 and $499,723,098 less than in 1929, and average annual payments to wage earners $130 higher than in 1933 and $419 lower than in 1929.

The average number of bookkeepers, stenographers, and office clerks employed in 1934 was 6,914 greater than in 1933 and 18,641 less than in 1929, total wage and salary payments were $13,613,772 greater than in 1933 and $51,750,054 less than in 1929, and average annual payments $62 higher than in 1933 and $302 lower than in 1929.

For wage earners the 1934 index (1926=100.0) of employment was 79.4, of total wage and salary payments 59.2, and of average annual payments 74.6. For the clerical group, the index of employment was 85.1, of total payments 74.4, and of average annual payments 87.5. Indexes are not shown for the sales group.

Service industries.[3]—Considering all employees, except superintendents and managers, the average number reported employed in 1934 was 12,432 greater than in 1933 and 9,370 less than in 1929, total wage and salary payments were $14,313,871 greater than in 1933 and $66,207,836 less than in 1929, and average annual payments $13 higher than in 1933 and $370 lower than in 1929. The 1934 index (1926=100.0) of average annual payments was 78.1.

The general industry group "service" includes a number of activities and industries seldom covered in statistical studies and for some of these it was very difficult to secure mailing lists. By persistent effort the Ohio Division of Labor Statistics has built up such lists and has secured a much more satisfactory coverage during recent years. This fact of more nearly complete coverage year after year should be borne in mind particularly in considering average number employed and total wage and salary payments. Indexes of average employment and total wage and salary payments are not shown.

Trade, wholesale and retail.—The average number of wage earners employed in 1934 was 6,598 greater than in 1933 and 2,324 less than in 1929, total payments were $9,819,719 greater than in 1933 and $16,568,098 less than in 1929, and average annual payments $62 higher than in 1933 and $249 lower than in 1929.

The average number of bookkeepers, stenographers, and office clerks employed in 1934 was 782 greater than in 1933 and 5,520 less

[3] The principal industries and activities classified under the industry group "service" are: Hotels, restaurants, clubs, theaters, bowling alleys, servants in private homes, garages, laundering and dry cleaning, barbers and hairdressers, banks, offices, office buildings, welfare agencies, hospitals, churches, schools and colleges, photographers, shoe repairing, undertakers, cemeteries, etc.

than in 1929, total payments were $2,648,665 greater than in 1933 and $11,550,606 less than in 1929, and average annual payments $95 higher than in 1933 and $216 lower than in 1929.

The average number of salespeople (not traveling) employed in 1934 was 4,362 greater than in 1933 and 5,152 less than in 1929, total payments were $6,929,356 greater than in 1933 and $22,598,504 less than in 1929, and average annual payments $52 higher than in 1933 and $267 lower than in 1929.

Considering the three general occupation groups combined, the average number of persons employed in 1934 was 11,742 greater than in 1933 and 12,996 less than in 1929, total payments were $19,397,740 greater than in 1933 and $50,717,208 less than in 1929, and average annual payments $63 higher than in 1933 and $254 lower than in 1929.

For the occupation groups combined, the 1934 index (1926=100.0) of employment was 102.6, of total wage and salary payments 80.1, and of average annual payments 78.1.

Transportation and public utilities.—The average number of wage earners employed in 1934 was 3,215 greater than in 1933 and 15,425 less than in 1929. Total wage and salary payments to wage earners were $8,037,803 greater than in 1933 and $30,521,031 less than in 1929, and average annual payments $85 higher than in 1933 and $172 lower than in 1929.

For wage earners, the 1934 index (1926=100.0) of employment was 76.0, of total wage and salary payments 67.7, and of average annual payments 89.1. Indexes are not shown for other occupation groups.

It should be borne in mind that the Ohio Division of Labor Statistics does not request information from establishments engaged in interstate transportation nor from governmental units.

Comparisons of general industry groups.—Considering for each industry group the three general occupation groups combined, the average number employed in 1934 was greater than in either of the 2 preceding years. In manufactures and in all industries combined the average was greater than in any of the 3 preceding years.

Total wage and salary payments to the three general occupation groups combined, in 1934, were greater than in 1933 in each of the six industry groups and greater than in 1932 in manufactures, trade, and transportation and public utilities.

Considering the three general occupation groups combined, the average annual payment in 1934 was higher than in 1933 in each of the six industry groups and higher than in 1932 in manufactures, in transportation and public utilities, and in all industries combined.

Of the six general industry groups, construction, which had undergone the greatest curtailment during the past few years, showed the highest percent of increase from 1933 to 1934 in employment, total

wage and salary payments, and average annual payments. For construction in 1934, however, the indexes of these three items were far below those for any other general industry group.

Table 2.—Employment and Wage and Salary Payments in Ohio, 1933 and 1934, by General Industry Groups

[Data for earlier years were published in the Monthly Labor Review, April 1935, and in Bulletin No. 613]

All industries

Item	1933	1934	Increase from 1933 to 1934		Index (1926=100.0)	
			Number or amount	Percent	1933	1934
Number of establishments	37,578	38,591				
Average number of persons employed:						
Wage earners	656,020	765,305	109,285	16.7	68.3	79.7
Bookkeepers, stenographers, and office clerks	131,137	142,277	11,140	8.5	89.7	97.3
Salespeople (not traveling)	67,835	73,012	5,177	7.6	97.1	104.5
Total	854,992	980,594	125,602	14.7	72.7	83.4
Total wage and salary payments to—						
Wage earners	$615,524,445	$801,568,498	$186,044,053	30.2	45.2	58.9
Bookkeepers, stenographers, and office clerks	175,149,757	195,517,379	20,367,622	11.6	75.9	84.8
Salespeople (not traveling)	62,173,379	70,884,831	8,711,452	14.0	63.8	72.7
Subtotal	852,847,581	1,067,970,708	215,123,127	25.2	50.5	63.2
Superintendents and managers	73,728,249	79,178,543	5,450,294	7.4	(1)	(1)
Grand total	926,575,830	1,147,149,251	220,573,421	23.8	(1)	(1)
Average annual payments to—						
Wage earners	$938	$1,047	$109	11.6	66.1	73.8
Bookkeepers, stenographers, and office clerks	1,336	1,374	38	2.8	84.7	87.1
Salespeople (not traveling)	917	971	54	5.9	65.7	69.6
All employees [2]	997	1,089	92	9.2	69.4	75.8

Agriculture

Number of establishments	1,683	1,695				
Average number of persons employed:						
Wage earners	7,311	7,776	465	6.4	(1)	(1)
Bookkeepers, stenographers, and office clerks	263	273	10	(1)	(1)	(1)
Salespeople (not traveling)	55	51	[3] 4	(1)	(1)	(1)
Total	7,629	8,100	471	6.2	(1)	(1)
Total wage and salary payments to—						
Wage earners	$4,195,905	$4,674,232	$478,327	11.4	(1)	(1)
Bookkeepers, stenographers, and office clerks	201,175	219,888	18,713	9.3	(1)	(1)
Salespeople (not traveling)	50,620	38,837	[3] 11,783	[3] 23.3	(1)	(1)
Subtotal	4,447,700	4,932,957	485,257	10.9	(1)	(1)
Superintendents and managers	378,188	338,123	[3] 40,065	[3] 10.6	(1)	(1)
Grand total	4,825,888	5,271,080	445,192	9.2	(1)	(1)
Average annual payments to—						
Wage earners	$574	$601	$27	4.7	60.2	63.0
Bookkeepers, stenographers, and office clerks	(1)	(1)				
Salespeople (not traveling)	(1)	(1)				
All employees [2]	583	609	26	4.5	(1)	(1)

[1] Not computed; see statements in text.
[2] Not including superintendents and managers.
[3] Decrease.

Table 2.—Employment and Wage and Salary Payments in Ohio, 1933 and 1934, by General Industry Groups—Continued

[Data for earlier years were published in the Monthly Labor Review, April 1935, and in Bulletin No. 613]

Construction

Item	1933	1934	Increase from 1933 to 1934		Index (1926=100.0)	
			Number or amount	Percent	1933	1934
Number of establishments	5,586	5,971				
Average number of persons employed:						
Wage earners	19,871	24,856	4,985	25.1	26.6	33.3
Bookkeepers, stenographers, and office clerks	2,220	2,285	65	2.9	(1)	(1)
Salespeople (not traveling)	603	595	[3] 8	[3] 1.3	(1)	(1)
Total	22,694	27,736	5,042	22.2	(1)	(1)
Total wage and salary payments to—						
Wage earners	$16,313,636	$23,830,991	$7,517,355	46.1	13.5	19.8
Bookkeepers, stenographers, and office clerks	2,633,765	2,120,234	[3] 513,531	[3] 19.5	(1)	(1)
Salespeople (not traveling)	601,359	703,788	102,429	17.0	(1)	(1)
Subtotal	19,548,760	26,655,013	7,106,253	36.4	(1)	(1)
Superintendents and managers	1,937,409	2,006,493	69,084	3.6	(1)	(1)
Grand total	21,486,169	28,661,506	7,175,337	33.4	(1)	(1)
Average annual payments to—						
Wage earners	$821	$959	$138	16.8	51.0	59.5
Bookkeepers, stenographers, and office clerks	1,186	928	[3] 258	[3] 21.8	(1)	(1)
Salespeople (not traveling)	997	1,183	186	18.7	(1)	(1)
All employees [2]	861	961	100	11.6	(1)	(1)

Manufactures

Number of establishments	8,755	8,848				
Average number of persons employed:						
Wage earners	449,378	533,674	84,296	18.8	66.9	79.4
Bookkeepers, stenographers, and office clerks	53,642	60,556	6,914	12.9	75.3	85.1
Salespeople (not traveling)	4,955	5,362	407	8.2	(1)	(1)
Total	507,975	599,592	91,617	18.0	67.6	79.8
Total wage and salary payments to—						
Wage earners	$426,727,589	$576,490,632	$149,763,043	35.1	43.8	59.2
Bookkeepers, stenographers, and office clerks	76,595,893	90,209,665	13,613,772	17.8	63.2	74.4
Salespeople (not traveling)	7,248,014	7,736,596	488,582	6.7	(1)	(1)
Subtotal	510,571,496	674,436,893	163,865,397	32.1	45.9	60.7
Superintendents and managers	31,834,851	34,699,136	2,864,285	9.0	(1)	(1)
Grand total	542,406,347	709,136,029	166,729,682	30.7	(1)	(1)
Average annual payments to—						
Wage earners	$950	$1,080	$130	13.7	65.6	74.6
Bookkeepers, stenographers, and office clerks	1,428	1,490	62	4.3	83.9	87.5
Salespeople (not traveling)	1,463	1,443	[3] 20	[3] 1.4	(1)	(1)
All employees [2]	1,005	1,125	120	11.9	68.0	76.1

Service industries

Number of establishments	10,215	10,540				
Average number of persons employed:						
Wage earners	83,190	92,916	9,726	11.7	(1)	(1)
Bookkeepers, stenographers, and office clerks	44,503	47,000	2,497	5.6	(1)	(1)
Salespeople (not traveling)	3,614	3,823	209	5.8	(1)	(1)
Total	131,307	143,739	12,432	9.5	(1)	(1)

[1] Not computed; see statements in text. [2] Not including superintendents and managers. [3] Decrease.

Table 2.—Employment and Wage and Salary Payments in Ohio, 1933 and 1934, by General Industry Groups—Continued

[Data for earlier years were published in the Monthly Labor Review, April 1935, and in Bulletin No. 613]

Service industries—Continued

Item	1933	1934	Increase from 1933 to 1934		Index (1926=100.0)	
			Number or amount	Per-cent	1933	1934
Total wage and salary payments to—						
Wage earners	$66,264,946	$76,692,752	$10,427,806	15.7	(1)	(1)
Bookkeepers, stenographers, and office clerks	61,225,599	64,197,309	2,971,710	4.9	(1)	(1)
Salespeople (not traveling)	3,895,052	4,809,407	914,355	23.5	(1)	(1)
Subtotal	131,385,597	145,699,468	14,313,871	10.9	(1)	(1)
Superintendents and managers	16,860,884	17,942,599	1,081,715	6.4	(1)	(1)
Grand total	148,246,481	163,642,067	15,395,586	10.4	(1)	(1)
Average annual payments to—						
Wage earners	$797	$825	$28	3.5	69.1	71.6
Bookkeepers, stenographers, and office clerks	1,376	1,366	[3] 10	[3] .7	91.0	90.3
Salespeople (not traveling)	1,078	1,258	180	16.7	(1)	(1)
All employees [2]	1,001	1,014	13	1.3	77.1	78.1

Trade, wholesale and retail

Number of establishments	9,647	9,828				
Average number of persons employed:						
Wage earners	48,049	54,647	6,598	13.7	85.0	96.7
Bookkeepers, stenographers, and office clerks	18,671	19,453	782	4.2	81.0	84.4
Salespeople (not traveling)	57,766	62,128	4,362	7.6	108.6	116.8
Total	124,486	136,228	11,742	9.4	93.8	102.6
Total wage and salary payments to—						
Wage earners	$46,592,394	$56,412,113	$9,819,719	21.1	64.4	78.0
Bookkeepers, stenographers, and office clerks	19,069,688	21,718,353	2,648,665	13.9	61.1	69.5
Salespeople (not traveling)	48,810,856	55,740,212	6,929,356	14.2	76.9	87.8
Subtotal	114,472,938	133,870,678	19,397,740	16.9	68.5	80.1
Superintendents and managers	17,092,965	18,431,377	1,338,412	7.8	(1)	(1)
Grand total	131,565,903	152,302,055	20,736,152	15.8	(1)	(1)
Average annual payments to—						
Wage earners	$970	$1,032	$62	6.4	75.8	80.6
Bookkeepers, stenographers, and office clerks	1,021	1,116	95	9.3	75.4	82.4
Salespeople (not traveling)	845	897	52	6.2	70.8	75.1
All employees [2]	920	983	63	6.8	73.1	78.1

Transportation and public utilities

Number of establishments	1,692	1,709				
Average number of persons employed:						
Wage earners	48,222	51,437	3,215	6.7	71.3	76.0
Bookkeepers, stenographers, and office clerks	11,838	12,709	871	7.4	(1)	(1)
Salespeople (not traveling)	841	1,054	213	25.3	(1)	(1)
Total	60,901	65,200	4,299	7.1	(1)	(1)
Total wage and salary payments to—						
Wage earners	$55,429,975	$63,467,778	$8,037,803	14.5	59.2	67.7
Bookkeepers, stenographers, and office clerks	15,423,637	17,051,930	1,628,293	10.6	(1)	(1)
Salespeople (not traveling)	1,567,478	1,855,991	288,513	18.4	(1)	(1)
Subtotal	72,421,090	82,375,699	9,954,609	13.7	(1)	(1)
Superintendents and managers	5,623,952	5,760,815	136,863	2.4	(1)	(1)
Grand total	78,045,042	88,136,514	10,091,472	12.9	(1)	(1)
Average annual payments to—						
Wage earners	$1,149	$1,234	$85	7.4	83.0	89.1
Bookkeepers, stenographers, and office clerks	1,303	1,342	39	3.0	(1)	(1)
Salespeople (not traveling)	1,864	1,761	[3] 103	[3] 5.5	(1)	(1)
All employees [2]	1,189	1,263	74	6.2	(1)	(1)

[1] Not computed; see statements in text. [2] Not including superintendents and managers. [3] Decrease.

Comparisons With Other Sources

THE United States Bureau of the Census does not compute average annual wage payments in compiling the biennial census of manufactures, and states in the 1929 report the reasons for not making such computations.[4] In this study computations have been made from the census reports for wage earners in manufactures in Ohio, and in table 3 comparisons are shown with average annual payments based on the Ohio Division of Labor Statistics data.

The two series are in approximate agreement. The average annual payment to wage earners in manufactures in Ohio computed from the Ohio reports as compared with those computed from the United States census (press release, May 27, 1935), were 0.74 percent higher in 1929, 1.28 percent higher in 1931, and 2.15 percent higher in 1933. The decrease from 1929 to 1933 computed from the census figures was 37.5 percent, and computed from the reports to the Ohio Division of Labor Statistics 36.6 percent.

Table 3.—Average Annual Wage Payment to Wage Earners in Manufactures in Ohio, 1929, 1931, and 1933

Year	Average annual payments—	
	Computed from United States census	Based on Ohio Division of Labor Statistics data
1929	$1,488	$1,499
1931	1,170	1,185
1933	930	950

Certain comparisons may also be made with the United States census reports on construction, retail trade, and wholesale trade. The construction census, however, was limited to contractors whose gross business during the preceding year amounted to at least $25,000. The number of establishments covered in 1929 in Ohio by the census was 1,929 compared with 10,183 covered by the Ohio Division of Labor Statistics.[5] The average annual wage payment to wage earners in construction in Ohio in 1929 as shown by the census report was $1,786 and as computed from the reports to the Ohio Division of Labor Statistics, including many additional small establishments, it was $1,668, or 6.6 percent less.

The United States Bureau of the Census separates wholesale and retail establishments and apparently classifies under "Trade" some activities not so classified by the Ohio Division of Labor Statistics. The census of trade also includes a great number of small establish-

[4] The U. S. Bureau of the Census, however, does compute average annual payments in the construction industry and in the earlier report on retail trades.

[5] For further comparisons for 1929, see Monthly Labor Review, February 1934 (pp. 254-256).

ments which would not be covered by the Ohio Division of Labor Statistics which requested reports only from those employing three or more persons. The census report covered 8,077 wholesale and 83,717 retail establishments in 1929 and 8,313 wholesale establishments (press release, Oct. 26, 1934) and 85,961 retail establishments (press release, Nov. 20, 1934) in 1933.[6] Of the 83,717 retail establishments in 1929, 71,361 reported annual sales of less than $50,000 and 33,350 reported annual sales of less than $10,000.

The average annual wage payment in retail trade in Ohio per full-time employee, computed from the Bureau of the Census press release of November 20, 1934, was $1,341 in 1929 and $974 in 1933—a decrease from 1929 to 1933 of 27.4 percent. The average annual wage payment per employee in wholesale and retail trade computed from reports to the Ohio Division of Labor Statistics, including full-time, part-time, and overtime workers, was $1,237 in 1929 and $920 in 1933—the decrease on this basis being 25.6 percent.

The increases from 1933 to 1934 computed from the general indexes for the United States published by the United States Bureau of Labor Statistics,[7] in manufactures were 14.2 percent in employment and 27.6 percent in pay rolls; in wholesale trade, 8.8 percent in employment and 10.9 percent in pay rolls; and in retail trade, 7.8 percent in employment and 10.3 percent in pay rolls. The increases in Ohio computed from reports to the Ohio Division of Labor Statistics in manufactures (all employees combined) were 18 percent in employment and 32.1 percent in total wage and salary payments; and in wholesale and retail trade (all employees combined) 9.4 percent in employment and 16.9 percent in total wage and salary payments.

Decreases from 1929 to 1934 computed from the general indexes of the Bureau of Labor Statistics for the United States in manufactures were 24.8 percent in employment and 43.3 percent in pay rolls. The decreases in Ohio computed from reports to the Ohio Division of Labor Statistics in manufactures (all employees combined) were 25.7 percent in employment and 45.5 percent in total wage and salary payments. Data are not available for comparisons in trades.

Index Numbers of Wages Per Hour, 1840 to 1934

A GENERAL index of wages or earnings per hour for each year, 1840 to 1934, for the wage earners of the country as a whole (exclusive of agricultural wage earners), with the 3-year average, 1923–25, earnings per hour as the base or 100, is presented in the table following. The index is a composite of all satisfactory data available. Agriculture was excluded because of the seasonal character of that

[6] For further comparisons for 1929, see Monthly Labor Review, May 1934 (pp. 1040-1042).
[7] Monthly Labor Review, March 1935.

industry and the wide variety of the perquisites so often forming part of the compensation of farm hands.

The general wage index of average hourly earnings was first published by the Bureau of Labor Statistics for the period 1840 to 1920; this was later extended successively to 1926, to 1929, and to 1932, and is now brought down to 1934. The index for 1934 is subject to possible revision as further data may become available. The figures are based on wages as paid in currency.

The figures in the table are for average wage rates or earnings per hour for wage earners actually at work. They cannot be taken as reflecting earnings per day or per week.

Index Numbers of Wages Per Hour, 1840 to 1934 (Exclusive of Agriculture)

[On currency basis during Civil War period. 3-year average, 1923-25=100]

Year	Index number	Year	Index number	Year	Index number	Year	Index number
1840	14.9	1864	22.5	1888	30.2	1912	43.7
1841	15.3	1865	26.1	1889	30.6	1913	45.0
1842	14.9	1866	27.5	1890	31.1	1914	45.9
1843	14.9	1867	28.4	1891	31.1	1915	46.4
1844	14.4	1868	29.3	1892	31.1	1916	50.0
1845	14.9	1869	29.7	1893	31.1	1917	57.7
1846	15.3	1870	30.2	1894	30.2	1918	73.0
1847	15.3	1871	30.6	1895	30.6	1919	82.9
1848	15.8	1872	31.1	1896	31.1	1920	105.4
1849	16.2	1873	31.1	1897	31.1	1921	98.2
1850	15.8	1874	30.2	1898	31.1	1922	93.7
1851	15.3	1875	30.2	1899	31.5	1923	97.7
1852	15.8	1876	28.8	1900	32.9	1924	100.3
1853	15.8	1877	27.5	1901	33.3	1925	101.8
1854	16.7	1878	27.0	1902	34.7	1926	103.2
1855	17.1	1879	26.6	1903	36.0	1927	104.1
1856	17.6	1880	27.0	1904	36.0	1928	104.5
1857	18.0	1881	27.9	1905	36.9	1929	105.0
1858	17.6	1882	28.4	1906	38.3	1930	103.2
1859	17.6	1883	28.8	1907	40.1	1931	97.7
1860	17.6	1884	28.8	1908	40.1	1932	83.8
1861	18.0	1885	28.8	1909	40.5	1933	80.2
1862	18.5	1886	28.8	1910	41.9	1934	[1] 90.1
1863	19.8	1887	30.2	1911	42.8		

[1] Subject to revision.

The table shows that the general trend of hourly earnings has been upward. There was more than a sevenfold increase in the 80 years from 1840 to 1920, the peak year, the index rising from 14.9 to 105.4 in that time. Unusual increases were made during each of the two great wars. After the Civil War there was an increase each year until 1872, when rates or earnings per hour were 72.8 percent higher than in 1861. From 1914 to 1919, or during the World War, there was an 80.6 percent increase, the index rising from 45.9 to 82.9. In 1920 the wage level was 129.6 percent higher than in 1914 and 5.4 percent higher than the basic 3-year average.

The years 1921 and 1922 were a period of depression, unemployment, and wage-rate decreases. The general level of wage rates or earnings per hour in 1921 was 6.8 percent, and in 1922 was 11.1 percent less than in 1920. From 1922 there was an increase each year

to 1929. The depression began late in that year. The wage level in 1929 was only a fraction of 1 percent lower than that in 1920. The level for 1930 was 1.7 percent lower than in 1929; for 1931 it was 7 percent lower; for 1932 it was 20.2 percent lower; and for 1933 was 23.6 percent less than in 1929. The index for 1934 was 12.3 percent higher than in 1933.

Trend of Real Wages Per Hour, 1913 to 1934

REAL wages per hour, that is, wages in relation to cost of living, for those who had employment increased from 1933 to 1934 and were in the latter year higher than at any time since 1931.

The general trend of wages per hour, from 1840 to 1934, is shown in the preceding article. Such figures relate to the money received per hour by the wage earner as compensation for his work. Most of the money so received, however, must be utilized for the purchase of the necessaries of life. The real measure of the wage, therefore, is not the money income, but what the worker is able to buy with it. If his hourly wage and his cost of living change in the same direction and to the same extent, then his economic condition remains unchanged.

In the following table are shown index numbers of wages per hour and of cost of living, with the indexes based on 3-year average, 1923–25=100. From these have been computed a third index number showing the change from 1913 to 1934 in the workers' real wage per hour.

Index Numbers of Wages Per Hour, Cost of Living, and Real Wages

[3-year average 1923–25=100]

Year	Index numbers of—			Year	Index numbers of—		
	Wages per hour	Cost of living	Real wages		Wages per hour	Cost of living	Real wages
1913	45.0	58.0	77.6	1924	100.5	99.0	101.5
1914	45.9	59.7	76.9	1925	101.8	101.9	99.9
1915	46.4	60.9	76.2	1926	103.2	101.6	101.6
1916	50.0	68.6	72.9	1927	104.1	100.1	104.0
1917	57.7	82.6	69.9	1928	104.5	99.0	105.6
1918	73.0	101.1	72.2	1929	105.0	99.0	106.1
1919	82.9	109.2	75.9	1930	103.2	94.9	108.7
1920	105.4	120.9	87.2	1931	97.7	85.9	113.7
1921	98.2	102.8	95.5	1932	83.8	77.6	108.0
1922	93.7	97.0	96.6	1933	80.2	76.3	105.1
1923	97.7	99.1	98.6	1934	90.1	79.8	112.9

Taking the 3-year average, 1923–25, as the basis of comparison, it is seen that in 1917 money hourly wages were 57.7 or 42.3 percent less than the basic 3-year average, while cost of living was 82.6 or only 17.4 percent less. In other words, the difference in the cost of living between that for the 3-year average and 1917 was much less than the difference in the hourly wages. The purchasing power of

wages, the real hourly wages, of the wage earner in 1917 was only 69.9 percent of the basic 3-year average, the lowest point in real wages per hour in the whole 22-year period covered.

In the 1921 industrial depression, both hourly wages and cost of living were less than in 1920, but the decrease in cost of living was relatively greater, so that the wage earner who had a job that year had a real hourly wage which was 9.5 percent higher than in 1920. After 1917 the purchasing power of wages per hour steadily increased except in 1925 and 1932. In 1932 the wage earner was able to purchase with his hourly money wage 8 percent more than the basic 3-year average. In 1933 wages per hour (with an index of 80.2) were less than in any year since 1918, while cost of living (with an index of 76.3) was less than any year since 1916. In 1934 hourly wages were 12.3 percent, cost of living was 4.6 percent, and real wages 7.4 percent more than in 1933.

Earnings in New York State Factories, June 1914 to December 1935

WEEKLY earnings of office and shop employees in representative factories in New York State averaged $25.02 in December 1935, higher than in any other month since October 1931, when the average was $25.34. The following table, taken from the Industrial Bulletin of the New York State Department of Labor for January 1936, shows the weekly earnings of these workers by month from June 1914 to December 1935.

Average Weekly Earnings in Representative New York State Factories

[Includes all employees in both office and shop. The average weekly earnings are obtained by dividing the total weekly pay roll by the total number of employees on the pay roll for the given week. Reports cover the week including the 15th of the month]

Year	Average for year	January	February	March	April	May	June	July	August	September	October	November	December
1914	------	------	------	------	------	------	$12.70	$12.54	$12.53	$12.48	$12.26	$12.32	$12.56
1915	$12.85	$12.44	$12.41	$12.65	$12.54	$12.74	12.81	12.66	12.89	12.86	13.30	13.45	13.49
1916	14.43	13.53	13.77	13.96	14.15	14.24	14.41	14.11	14.44	14.87	14.95	15.16	15.51
1917	16.37	15.28	15.31	15.79	15.50	16.08	16.20	16.17	16.44	16.97	17.33	17.69	17.71
1918	20.35	16.81	17.66	18.71	19.25	19.91	20.44	20.78	21.23	22.31	22.34	21.60	23.18
1919	23.50	23.03	22.07	22.20	22.11	22.23	22.51	23.10	23.85	24.83	24.41	25.37	26.32
1920	28.15	26.52	26.47	27.87	27.80	28.45	28.77	28.49	28.71	28.73	28.93	28.70	28.35
1921	25.72	27.61	26.77	26.97	26.20	25.86	25.71	25.26	25.43	25.07	24.53	24.32	24.91
1922	25.04	24.43	24.17	24.57	24.15	24.59	24.91	24.77	25.10	25.71	25.61	26.04	26.39
1923	27.24	26.21	25.87	26.92	27.00	27.63	27.87	27.54	27.12	27.41	27.72	27.64	27.98
1924	27.68	27.81	27.73	28.16	27.70	27.56	27.21	27.06	27.40	28.05	27.53	27.66	28.25
1925	28.26	28.30	27.96	28.45	27.67	28.07	27.94	27.98	28.16	28.33	28.57	28.67	29.05
1926	29.02	29.05	28.61	29.04	28.85	28.69	28.99	28.81	28.86	29.31	29.35	29.15	29.47
1927	29.30	29.52	29.39	29.78	29.17	29.18	29.17	28.95	29.29	29.57	29.28	28.75	29.57
1928	29.44	29.21	29.16	29.64	28.79	29.19	29.48	29.15	29.38	29.72	29.78	29.62	30.12
1929	29.99	29.71	29.99	30.35	30.07	30.03	30.02	29.80	30.09	30.47	30.08	29.54	29.75
1930	28.81	29.80	29.46	29.90	29.44	29.10	28.96	28.50	28.59	28.94	28.03	27.42	27.52
1931	26.42	27.01	27.44	27.96	27.35	26.96	26.34	26.39	26.33	26.16	25.34	24.99	24.74
1932	22.73	24.35	24.02	24.14	23.36	22.59	22.20	21.82	21.92	22.50	22.55	21.74	21.62
1933	21.83	20.96	20.95	20.73	21.02	21.49	21.95	22.34	22.48	22.87	22.52	22.25	22.43
1934	23.19	22.79	22.76	23.39	23.34	23.38	23.24	23.12	23.43	23.24	23.02	22.92	23.63
1935	24.36	23.92	24.11	24.62	24.36	24.05	24.04	23.93	24.52	24.83	24.68	24.24	25.02

Hourly Earnings of Male Industrial Workers in the Netherlands, First Half of 1935

HIGHEST average hourly earnings of male industrial workers in the Netherlands during the first half of 1935 were found in Amsterdam, and the lowest earnings in Nijmegen.[1] The following table shows earnings for these workers in the eight largest cities of the Netherlands.

Average Hourly Earnings of Male Industrial Workers in the Netherlands, First Half of 1935, by Class of Worker and City

[Florin (100 Dutch cents) at former par=40.2 cents; average exchange rate in June 1935 was 67.87 cents]

City	Number of workers			Average weekly hours			Average hourly earnings (in Dutch cents)		
	Skilled	Semi-skilled	Un-skilled	Skilled workers	Semi-skilled workers	Un-skilled workers	Skilled workers	Semi-skilled workers	Un-skilled workers
Amsterdam	5,184	2,930	1,817	47.0	46.5	44.5	67	61	58
Rotterdam	4,550	3,084	1,989	46.0	47.0	45.5	61	56	52
Hague	1,954	1,374	719	47.5	45.5	35.5	66	56	55
Utrecht	1,232	800	363	48.0	47.0	45.5	59	51	46
Haarlem	784	430	114	48.0	46.5	47.5	63	55	49
Groningen	751	484	164	46.5	47.5	47.0	61	49	37
Nijmegen	386	649	109	47.5	47.0	48.0	55	48	40
Leeuwarden	172	197	168	47.5	47.5	48.5	58	51	47

Wages and Cost of Living in the Netherland West Indies[2]

WAGES of laborers and employees working on an hourly basis in the refineries of the Netherland West Indies were reduced between 5 and 7 percent in the past year, but those in other trades remained generally the same as in 1934.

The Government paid the following rates for an 8½-hour day on public works in Curacao in 1935:

	Florins[1]
Unskilled labor	2.0–2.5
Masons	3.0–3.5
Carpenters	3.0–3.5
Smiths	3.0–4.0
Chauffeurs	3.0–3.5

[1] Florin=67.8 cents in United States currency at the end of 1935.

The cost of living advanced generally. Foodstuffs, the greater part of which come from the United States, felt the effect of higher American prices. Rents increased an estimated 20 percent because of demands for housing by refinery employees. An extensive house-building program was begun by private individuals to meet requirements. The prices of men's clothing remained the same, but those of women's clothing advanced about 25 percent. Japanese goods, of

[1] Maandschrift, Centraal Bureau voor de Statistiek, The Hague, Dec. 31, 1935, p. 1881.

[2] Data are from report of Russell M. Brooks, American Consul in Curacao, Jan. 17, 1936.

which very large quantities are sold in the Netherland West Indies, remained at the 1934 level.

Salaries of Employees of Opera and Concert Houses in Stockholm, Sweden, 1935

MUSICAL education in Sweden is promoted, wholly or largely, by the National Government.[1] Tradition rather than specific legislation has built up the legal background of Government support of music, which takes the form of enabling legislation and financial subsidies, the principal ones coming from the Government lottery. Among the institutions thus sponsored are the Academy of Music, The Royal Opera, a library, and the Stockholm Concert House Foundation and Orchestral Society, all located in Stockholm.

Expenditures of operation of the Royal Opera for the year 1934–35 amounted to $549,000,[2] of which sum $462,775 was expended in salaries. The average salaries of employees of this organization during the year were as follows:

Superintendent	$6,345.
Business staff	$3,300.
Registers	$3,850.
Stage manager	$1,820.
Assistant stage manager	$1,100.
Stage foreman, chief electrician, chief carpenter, chief machinist, ventilation superintendent, painter	$1,535 to $2,055.
Stage hands	$990.
Porter, messengers	$820.
Physician	$380.
Librarian	$255.
Electricians	$990.
Carpenters	$915.
Machinists	$1,135.
Tailors and dressmakers	$900.
Scene designer, manager	$4,315.
Scene designer, assistant	$1,279.
Orchestra:	
Conductors	$2,540.
Permanent members, scholarship students, and extras	$1,215 to $2,055.
Singers:	
Soloists	$2,540 and over.
Chorus—	
Men	$1,155.
Women	$865.
Ballet	$460 to $1,535.

[1] Report of Roy E. B. Bower, American consul at Stockholm, Dec. 6, 1935.

[2] Conversions into United States currency made on the basis of 3.94 kronor equaling $1 (as of December 1935); krona at former par=26.8 cents.

Every employee is eligible for membership in the pension fund. Employees who have been members of the fund for 15 years may retire on an annual pension of from $330 to $840, at the following specified ages: Actors, 58 years; actresses, 47; ballet master, 50; dancers, 41; chorus singers, 50; administration personnel and orchestra players, 60.

Members of the boards of directors of the Stockholm Concert House Foundation and Orchestral Society receive no salaries. Other personnel of this organization, however, are paid average annual salaries as follows:

	Average annual salary
Managers (total)	$5,000.
Office personnel, each	$600 to $1, 200.
Conductors	$3,000 to $5,100.
Soloists, according to fame (per performance)	$38 to $500.
Orchestra members (per month)	$82 to $89.
Concert masters	$1,420 to $1,775.

At the end of 6, 9, and 12 years, musicians receive an increase of $12 in monthly salary. Instruments are provided by the society. Orchestra members are employed 7 months of the year, give about 70 concerts, and attend 3-hour rehearsals or give concerts about 5 or 6 days a week. All are members of the Swedish Musician's Federation.

EMPLOYMENT OFFICES

Operations of the United States Employment Service, December 1935 and January 1936

January Activities

A TOTAL of 521,137 placements in public and private employment and on relief works projects were made by offices of the United States Employment Service during January, according to preliminary reports. While complete details of the classification of these placements are not yet available, estimates based on reports from all States indicate that this number includes 367,354 security-wage placements on relief works projects made by offices throughout the country during the month. Reflecting the decline in placements of this character since the peak of W. P. A. program assignment activity in November and December, this total was 44.4 percent below the December level.

Placements on public works in January, however, increased 6.4 percent over December levels, to an indicated total of 92,047. Private placements declined 0.5 percent to an estimated 61,736.

During January 428,478 additional new applicants were registered in the public employment offices, a decline of 12.1 percent from December. Including this number, over 4½ million individual new applicants have registered with the Employment Service since July 1, 1935. On January 31 the files of the operating employment offices contained the registrations of 9,010,309 active job seekers, an increase of 0.6 percent from the previous month-end.

The Employment Service made 39,546 veterans' placements according to estimates, which also indicated 15,960 registrations of veterans during January. At the close of the month, 549,460 veterans were indicated as actively seeking work through the Employment Service.

Detailed tables of January reports follow:

Table 1.—Operations of Offices of Combined State Employment Services and National Reemployment Service, January 1936 (Preliminary)

State	Placements						New applications		Active file	
	Total	Private	Percent of change from December 1935	Public	Percent of change from December 1935	Relief [1]	January 1936	Percent of change from December 1935	Jan. 31, 1936	Percent of change from December 1935
United States	521,137	61,736	+1.7	92,047	+4.0	367,354	428,478	−11.1	9,010,309	+0.6
Alabama	6,357	257	+37.4	666	−57.3	5,434	6,883	+25.9	146,881	+2.1
Arizona	4,664	389	+18.2	2,026	+22.4	2,249	3,369	+28.8	39,397	+7.8
Arkansas	8,152	536	−55.5	1,255	+3.0	6,361	4,655	−49.7	110,080	+4.1
California	43,643	5,607	−1.5	7,426	+43.3	30,610	35,772	−6.0	392,312	+6.8
Colorado	8,773	542	+.6	1,330	−21.3	6,901	10,282	−16.3	109,368	+11.5
Connecticut	6,331	1,192	+7.0	678	+64.6	4,461	6,020	−12.7	84,288	+8.5
Delaware	2,228	382	+63.9	428	+52.9	1,418	1,204	−19.2	16,890	+7.0
Florida	3,652	1,126	+39.0	1,674	−3.2	852	7,102	+57.6	164,612	+5.8
Georgia	6,663	1,270	−14.8	2,361	+75.4	3,032	7,913	+30.1	265,547	+4.6
Idaho	4,918	144	+29.7	597	−28.0	4,177	2,237	−22.4	37,949	+9.7
Illinois	29,066	5,559	−11.7	2,504	−2.5	21,003	29,959	−27.0	469,614	+5.9
Indiana	7,834	3,293	+.2	1,197	−19.4	3,344	9,606	+26.0	207,550	+5.8
Iowa	8,424	1,677	+36.5	1,644	−43.7	5,103	6,245	−16.8	101,889	+5.8
Kansas	6,143	531	−36.3	2,583	−16.2	3,029	4,599	+21.9	114,914	+3.6
Kentucky	2,623	476	+16.1	1,626	−12.3	521	6,748	−35.5	232,146	+4.6
Louisiana	1,003	336	−3.2	666	−44.5	1	1,719	+12.8	57,714	+2.5
Maine	1,635	91	−75.1	724	−58.0	820	1,819	−39.5	41,736	−10.6
Maryland	7,203	213	−15.5	672	+.4	6,318	6,166	+16.9	121,998	+6.7
Massachusetts	4,248	726	−26.4	1,900	−2.9	1,622	10,781	−51.0	369,588	+3.4
Michigan	25,013	366	+161.4	3,125	+93.6	21,522	17,939	−6.1	274,210	+18.6
Minnesota	9,692	2,957	+26.2	2,078	−20.4	4,657	7,323	−16.9	169,710	+2.7
Mississippi	7,582	45	+200.0	1,082	+38.4	6,455	8,028	+68.0	177,369	+7.4
Missouri	26,141	871	+7.9	2,906	−4.3	22,364	9,833	+.5	339,569	+2.0
Montana	2,307	428	−16.4	1,521	−18.2	358	1,606	−23.7	52,417	+4.5
Nebraska	4,872	450	+16.3	1,756	−16.4	2,666	4,517	−10.3	64,470	+9.7
Nevada	1,488	48	−20.0	1,037	−9.4	403	781	+14.5	7,676	−.9
New Hampshire	2,432	691	+189.1	568	−8.5	1,173	2,678	+68.9	34,000	+8.4
New Jersey	13,139	2,306	+9.9	1,411	−36.2	9,422	14,928	−23.3	296,990	+.8
New Mexico	6,322	247	−16.0	1,597	+53.4	4,478	3,460	+74.5	59,406	+5.1
New York	48,194	8,829	−9.1	4,476	+8.4	34,889	25,969	−58.1	675,547	−33.7
North Carolina	14,094	1,844	+78.5	2,589	+32.9	9,661	12,476	+46.1	194,595	+7.3
North Dakota	5,570	279	+365.0	139	−64.2	5,152	1,991	−23.9	46,683	+6.9
Ohio	18,030	6,247	+14.4	2,638	+6.9	9,145	21,143	−15.0	392,591	+3.1
Oklahoma	22,437	695	−12.1	2,484	+72.9	19,258	8,205	+41.1	163,787	+7.6
Oregon	6,415	245	−1.6	2,233	+9.5	3,937	4,298	−15.1	112,801	+4.2
Pennsylvania	39,494	3,277	+16.8	4,154	+19.3	32,063	37,474	+35.9	1,307,032	+2.9
Rhode Island	868	146	−40.2	328	+36.1	394	1,981	+29.8	57,047	−7.3
South Carolina	7,327	266	+33.0	1,068	+3.0	5,993	5,494	+10.8	149,646	+5.8
South Dakota	2,897	388	−31.8	948	−14.4	1,561	1,395	−46.8	41,447	−8.2
Tennessee	9,176	371	+80.1	1,584	+50.1	7,221	7,706	+55.9	251,997	+4.6
Texas	38,914	603	−25.0	8,888	+15.3	29,423	29,102	+31.9	306,501	+11.5
Utah	3,550	197	−35.6	1,020	−32.0	2,333	1,824	−28.2	42,949	+.9
Vermont	673	163	+25.4	315	−37.3	195	848	+15.8	16,370	+11.1
Virginia	5,014	967	−17.4	2,587	−3.3	1,460	8,954	−12.7	140,949	+4.9
Washington	10,941	323	+29.7	3,172	+64.6	7,446	6,492	−10.5	207,700	+3.3
West Virginia	12,885	484	+40.3	2,382	+17.9	10,019	4,989	−37.9	138,912	+5.7
Wisconsin	8,486	2,303	+1.7	847	−11.7	5,337	9,279	−18.1	139,728	+12.9
Wyoming	1,504	69	−55.2	578	−24.4	857	1,378	−29.6	16,677	+10.2
District of Columbia	2,120	1,284	−5.6	581	−26.0	255	3,308	+50.6	47,060	+5.2

[1] Includes only security wage placements on work-relief projects.

Table 2.—Operations of Offices of State Employment Services, January 1936 (Preliminary)

State	Placements						New applications		Active file	
	Total	Private	Percent of change from December 1935	Public	Percent of change from December 1935	Relief [1]	January 1936	Percent of change from December 1935	Jan. 31, 1936	Percent of change from Dec. 31, 1935
All States	239,615	44,564	[2]+2.3	33,663	[2]+7.8	161,388	228,514	[2]−15.4	4,097,182	[2]−2.0
Arizona	1,553	234	−2.1	872	+84.7	447	1,641	+42.8	14,891	+8.9
California	35,635	4,862	−1.1	4,998	+39.6	25,775	28,559	−8.6	320,724	+5.7
Colorado	3,653	302	+2.0	295	−41.2	3,056	7,934	−3.9	55,018	+18.6
Connecticut	5,205	896	+3.9	486	+64.2	3,823	4,826	−8.0	60,480	+10.6
Delaware	2,228	382	+63.9	428	+5[illegible].9	1,418	1,204	−19.2	16,890	+7.0
Florida	1,304	189	[3]	643	[3]	472	4,127	[3]	101,648	[3]
Idaho	2,838	104	+89.1	328	−9.4	2,406	1,448	−7.5	19,623	+11.8
Illinois	17,383	4,880	−12.1	1,683	−9.6	10,820	21,920	−31.7	329,283	+7.3
Indiana	5,240	2,686	−2.6	952	+2.9	1,602	6,386	+25.8	117,483	+5.2
Iowa	3,998	1,449	+32.6	650	−50.8	1,899	4,144	+.5	60,089	+7.6
Kansas (not affiliated)	1,616	260	−34.2	240	−52.3	1,116	1,031	+37.7	25,833	+4.8
Louisiana	1,003	336	−3.2	666	−44.5	1	1,719	+12.8	57,714	+2.5
Massachusetts	2,146	642	−29.1	875	−3.8	629	5,673	−64.8	153,400	+3.9
Minnesota	4,189	2,004	+25.4	525	−17.5	1,660	4,133	−1.9	82,305	+4.6
Missouri	14,714	720	+3.6	550	+4.2	13,444	5,933	+49.7	133,172	+2.4
Nevada	741	24	−42.9	681	+1.6	36	525	+13.1	5,104	+.5
New Hampshire	1,282	77	+30.5	395	+82.9	810	2,309	+166.3	16,981	+16.6
New Jersey	11,449	2,177	+13.1	1,181	−32.4	8,091	12,794	−24.2	246,434	+.8
New Mexico	3,230	128	+64.1	877	+274.8	2,225	2,205	+242.9	30,004	+6.1
New York	35,343	7,301	−12.0	2,589	+11.7	25,453	19,536	−62.9	412,110	−37.9
North Carolina	14,094	1,844	+78.5	2,589	+32.9	9,661	12,476	+46.1	194,595	+7.3
North Dakota	876	102	+750.0	47	+20.5	727	330	−2.7	5,340	+12.1
Ohio	14,274	5,353	+22.5	1,501	+36.8	7,420	16,367	−14.2	229,100	+1.1
Oklahoma	3,080	474	−16.4	454	+415.9	2,152	2,042	+55.4	30,770	+7.8
Oregon	3,471	147	−20.5	1,096	+3.4	2,228	2,915	−3.5	80,473	+3.9
Pennsylvania	23,504	2,268	+15.1	2,421	+54.4	18,815	27,038	+58.5	805,194	+2.9
Rhode Island	561	134	−38.0	270	+38.5	157	1,705	+20.3	50,690	−8.4
South Dakota	2,447	272	−45.1	898	−7.4	1,277	1,255	−45.1	36,412	−8.3
Tennessee	4,313	166	+58.1	1,053	+78.5	3,094	4,480	+43.8	109,855	+5.8
Texas	7,695	43	+53.6	1,393	−17.3	6,259	7,461	+25.6	74,659	+15.8
Vermont	673	163	+25.4	315	−37.3	195	848	+15.8	16,370	+11.1
Virginia	795	485	+16.6	145	+13.3	165	1,139	+37.9	20,291	+3.9
West Virginia	855	173	−12.2	293	−22.9	389	1,207	−33.1	29,108	+5.9
Wisconsin	5,312	1,965	+5.8	339	−38.9	3,008	7,152	−14.0	100,366	+25.9
Wyoming	795	38	−67.2	354	−28.0	403	744	−36.8	7,713	+9.7
District of Columbia	2,120	1,284	−5.6	581	−26.0	255	3,308	+50.6	47,060	+5.2

[1] Includes only security wage placements on work-relief projects.
[2] Computed from comparable reports only.
[3] Not comparable due to transfer of Tallahassee and Jacksonville offices from National Reemployment Service to State employment services.

Table 3.—Operations of Offices of National Reemployment Service, January 1936 (Preliminary)

State	Placements						New applications		Active file	
	Total	Private	Percent of change from December 1935	Public	Percent of change from December 1935	Relief [1]	January 1936	Percent of change from December 1935	Jan. 31, 1935	Percent of change from Dec. 31, 1935
All States	281,522	17,172	[2] −1.7	58,384	[2] +2.1	205,966	199,964	[2] −7.1	4,913,127	[2] +2.7
Alabama	6,357	257	+37.4	666	−57.3	5,434	6,883	+25.9	146,881	+2.1
Arizona	3,111	155	+72.2	1,154	−2.5	1,802	1,728	+17.9	24,506	+7.1
Arkansas	8,152	536	−55.5	1,255	+3.0	6,361	4,655	−49.7	110,080	+4.1
California	8,008	745	−4.0	2,428	+51.6	4,835	7,213	+5.9	71,588	+11.8
Colorado	5,120	240	−1.2	1,035	−12.9	3,845	2,348	−41.8	54,350	+5.2
Connecticut	1,126	296	+17.5	192	+65.5	638	1,194	−27.8	23,808	+3.6
Florida	2,348	937	[3]	1,031	[3]	380	2,975	[3]	62,964	[3]
Georgia	6,663	1,270	−14.8	2,361	+75.4	3,032	7,913	+30.1	265,547	+4.6
Idaho	2,080	40	−28.6	269	−42.4	1,771	789	−40.1	18,326	+7.5
Illinois	11,683	679	−8.7	821	−16.3	10,183	8,039	−10.2	140,331	+2.8
Indiana	2,594	607	+14.7	245	−56.3	1,742	3,220	+26.3	90,067	+6.7
Iowa	4,426	228	+67.6	994	−37.8	3,204	2,101	−37.9	41,800	+3.3
Kansas	4,527	271	−38.3	2,343	−9.1	1,913	3,568	+18.0	89,081	+3.3
Kentucky	2,623	476	+16.1	1,626	−12.3	521	6,748	−35.5	232,146	+4.6
Maine	1,635	91	−75.1	724	−58.0	820	1,819	−39.5	41,736	−10.6
Maryland	7,203	213	−15.5	672	+.4	6,318	6,166	+16.8	121,998	+6.7
Massachusetts	2,102	84	+2.4	1,025	−2.0	993	5,108	−13.4	216,188	+3.1
Michigan	25,013	366	+161.4	3,125	+93.6	21,522	17,939	−6.1	274,210	+18.6
Minnesota	5,503	953	+27.7	1,553	−21.4	2,997	3,190	−29.0	87,405	+1.0
Mississippi	7,582	45	+200.0	1,082	+38.4	6,455	8,028	+68.0	177,369	+7.4
Missouri	11,427	151	+34.8	2,356	−6.1	8,920	3,900	−33.0	206,397	+1.7
Montana	2,307	428	−16.4	1,521	−18.2	358	1,606	−23.7	52,417	+4.5
Nebraska	4,872	450	+16.3	1,756	−16.4	2,666	4,517	−10.3	64,470	+9.7
Nevada	747	24	+33.3	356	−25.1	367	256	+17.4	2,572	−3.7
New Hampshire	1,150	614	+241.1	173	−57.3	363	369	−48.7	17,019	+1.3
New Jersey	1,690	129	−25.9	230	−50.3	1,331	2,134	−17.8	50,556	+.9
New Mexico	3,092	119	−44.9	720	−10.8	2,253	1,255	−6.3	29,402	+4.0
New York	12,851	1,528	+7.8	1,887	+4.3	9,436	6,433	−31.6	263,437	−26.0
North Dakota	4,694	177	+268.8	92	−73.6	4,425	1,661	−27.0	41,343	+6.3
Ohio	3,756	894	−18.0	1,137	−17.1	1,725	4,776	−17.4	163,491	+5.9
Oklahoma	19,357	221	−1.3	2,030	+50.5	17,106	6,163	+36.9	133,017	+7.5
Oregon	2,944	98	+53.1	1,137	+16.0	1,709	1,383	−32.3	32,328	+5.0
Pennsylvania	15,990	1,009	+20.8	1,733	−9.5	13,248	10,436	−.8	501,838	+3.0
Rhode Island	307	12	−57.1	58	+26.1	237	276	+153.2	6,357	+2.8
South Carolina	7,327	266	+53.5	1,068	+3.1	5,993	5,494	+10.8	149,646	+5.8
South Dakota	450	116	+56.8	50	−63.8	284	140	−58.1	5,035	−7.3
Tennessee	4,863	205	+103.0	531	+14.2	4,127	3,226	+76.5	142,142	+3.6
Texas	31,219	560	−27.8	7,495	+24.4	23,164	21,641	+34.2	231,842	+10.2
Utah	3,550	197	−35.6	1,020	−32.0	2,333	1,824	−28.2	42,949	+.9
Virginia	4,219	482	−58.8	2,442	−8.7	1,295	7,815	−17.1	120,658	+5.1
Washington	10,941	323	+29.7	3,171	+64.6	7,447	6,492	−10.5	207,700	+3.3
West Virginia	12,030	311	+110.1	2,089	+27.3	9,630	3,782	−39.3	109,804	+5.7
Wisconsin	3,174	338	−17.0	507	+25.8	2,329	2,127	−29.4	39,362	−10.6
Wyoming	709	31	−18.4	224	−18.5	454	634	−18.6	8,964	+10.7

[1] Includes only security wage placements on work-relief projects.
[2] Computed from comparable reports only.
[3] Not comparable due to transfer of Tallahassee and Jacksonville offices from National Reemployment Service to State employment services.

Table 4.—Veterans' Activities of Offices of Combined State Employment Services and National Reemployment Service, January 1936 (Preliminary)

State	Placements [1]		New applications		Active file	
	January 1936	Percent of change from December 1935	January 1936	Percent of change from December 1935	Jan. 31, 1936	Percent of change from Dec. 31, 1935
United States	39,546	−32.0	15,960	−24.1	540,637	[2] −0.3
Alabama	379	−39.8	154	−12.0	8,110	+.1
Arizona	289	+7.0	151	−6.8	2,467	+4.1
Arkansas	386	−21.7	151	−52.1	5,305	+1.5
California	5,089	+26.7	2,353	−25.9	34,731	+4.4
Colorado	508	−46.0	452	−6.6	6,273	+8.3
Connecticut	529	−20.1	177	−38.5	5,971	+4.5
Delaware	155	+14.0	33	−8.3	999	+5.2
Florida	172	−15.7	186	+1.1	8,196	+3.2
Georgia	411	+.2	222	+11.6	11,730	+5.7
Idaho	343	+18.3	113	−18.7	2,211	+7.3
Illinois	2,263	−78.7	1,303	−35.2	35,396	+3.6
Indiana	595	+11.2	342	+1.2	15,161	+5.3
Iowa	903	−21.2	196	−33.1	7,665	+3.1
Kansas	531	−61.5	145	−24.1	7,529	+3.0
Kentucky	305	+15.5	195	−33.0	13,960	+3.5
Louisiana	123	−32.4	64	−25.6	4,557	+2.3
Maine	155	−68.3	63	−55.6	3,140	−12.5
Maryland	411	−41.1	186	+5.1	6,722	+4.5
Massachusetts	528	+36.4	453	−50.3	23,065	+2.7
Michigan	1,648	−16.0	919	−19.0	17,700	+15.6
Minnesota	910	−31.6	262	−21.6	13,474	+2.8
Mississippi	260	−7.5	136	+36.0	6,538	+4.1
Missouri	1,836	−8.4	585	−7.3	25,951	+14.2
Montana	281	−6.3	56	−33.3	3,183	+3.0
Nebraska	451	−50.7	116	−29.7	4,111	+9.8
Nevada	156	+10.6	44	+10.0	397	−3.9
New Hampshire	202	−23.2	94	+38.8	2,416	+3.2
New Jersey	933	−43.9	530	−28.3	21,598	+2.4
New Mexico	410	+60.2	93	.0	3,334	−1.2
New York	3,219	−5.7	691	−68.6	38,707	−35.7
North Carolina	773	−2.5	279	+37.4	8,108	+2.8
North Dakota	327	−14.6	46	−41.8	2,245	+3.8
Ohio	1,356	−43.6	787	−23.0	27,232	+1.6
Oklahoma	1,123	−32.5	195	−.5	10,363	+5.8
Oregon	659	−51.1	166	−40.5	9,152	+19.6
Pennsylvania	3,763	−14.9	1,502	+31.6	63,798	+2.3
Rhode Island	85	−41.8	86	+7.5	3,795	+3.9
South Carolina	424	−.7	155	−24.8	6,526	+4.2
South Dakota	256	−62.6	59	−47.8	2,551	−11.5
Tennessee	517	−39.5	198	+10.0	13,259	+3.2
Texas	2,200	−21.1	643	+4.6	16,432	+3.3
Utah	336	−51.4	37	−48.6	2,697	−2.8
Vermont	18	−59.1	20	+33.3	596	+14.2
Virginia	437	−2.9	317	−22.1	6,265	−6.0
Washington	954	−30.7	245	−6.8	14,410	+2.3
West Virginia	850	−34.3	145	−25.6	7,667	+5.9
Wisconsin	767	−46.9	367	−34.6	[3]	
Wyoming	130	−41.4	57	−49.6	1,223	+8.1
District of Columbia	186	−43.8	191	+51.6	3,721	+5.8

[1] Includes public, private, and relief works placements.
[2] Computed from comparable reports only.
[3] No report available.

December Activities

DUE TO delay in receiving reports from the field, caused by the pressure of heavy registration and placement activities during December, it was possible to publish a report only of preliminary estimates of December operations in the last issue of the Monthly Labor Review. Complete reports for December are now available and detailed State-by-State operating figures are shown in the following tables. Condensed tables showing the November operating totals for the four employment services for which reports were previously unavailable and complete November summary totals for the entire Employment Service are given in table 5 (p. 734).

During December, 794,342 placements were reported, 646,258 on relief works projects at security wages, 86,645 on public work, and 61,439 in private employment. Registrations were received from 481,902 applicants in December and 8,954,017 applicants were reported as actively seeking work at the end of the month.

Placements of 58,027 veterans were made during December, and 21,055 previously unregistered veterans made application with the Employment Service. At the end of the month 551,377 veterans were actively seeking work.

Table 1.—Operations of Offices of Combined State Employment and National Reemployment Services, December 1935

State	Placements						New applications		Active file	
	Total	Private	Percent of change from November	Public	Percent of change from November	Relief[1]	December	Percent of change from November	Dec. 31	Percent of change from Nov. 30
United States	794,342	61,439	−2.2	86,645	+0.2	646,258	481,902	−9.9	8,954,017	[2] +5.2
Alabama	10,863	182	+8.3	368	−69.9	10,313	5,468	+13.5	143,782	+7.6
Arizona	9,342	329	−27.5	1,655	+8.3	7,358	2,615	+.8	36,541	+9.0
Arkansas	9,775	1,204	+38.7	1,219	−22.4	7,352	9,258	+12.8	105,758	+14.7
California	40,651	5,693	−28.5	5,181	+3.6	29,777	38,049	+2.5	367,373	+11.0
Colorado	14,733	539	−31.3	1,690	−7.9	12,504	12,287	+77.6	98,056	+23.4
Connecticut	8,351	1,114	−1.2	412	−31.2	6,825	6,898	+16.6	77,660	+12.6
Delaware	2,325	233	+39.5	280	+101.4	1,812	1,491	+16.7	15,780	+15.6
Florida	3,985	810	−32.9	1,729	+7.8	1,446	4,506	+14.8	155,629	+5.3
Georgia	7,742	1,491	−18.5	1,346	+197.8	4,905	6,083	−31.0	253,903	+2.8
Idaho	4,570	111	−52.0	829	−30.0	3,630	2,884	−1.2	34,591	+18.3
Illinois	123,546	6,295	−6.0	2,568	+36.4	114,683	41,043	−24.8	443,474	[3]
Indiana	5,811	3,286	+.7	1,486	+14.7	1,039	7,626	−14.2	196,161	+5.9
Iowa	10,127	1,229	+1.1	2,919	−19.4	5,979	7,507	+11.8	96,307	+17.0
Kansas	18,383	834	−19.5	3,081	+130.4	14,468	3,773	−23.3	110,887	+5.8
Kentucky	2,924	410	+79.8	1,855	+25.6	659	10,457	+17.5	221,991	+6.1

[1] Includes only security wage placements on relief works projects.
[2] Computed from comparable reports only.
[3] Not comparable due to addition of 135,000 relief applications received during July through December 1935 and not previously reported.

Table 1.—Operations of Offices of Combined State Employment and National Reemployment Services, December 1935—Continued

State	Placements						New applications		Active file	
	Total	Private	Percent of change from November	Public	Percent of change from November	Relief	December	Percent of change from November	Dec. 31	Percent of change from Nov. 30
Louisiana	1,551	347	−22.2	1,199	+13.1	5	1,524	+7.6	56,307	+4.4
Maine	5,372	366	+60.5	1,724	+76.8	3,282	3,007	−47.4	46,687	+15.8
Maryland	8,826	252	−21.7	669	−7.4	7,905	5,274	−25.2	114,333	+5.9
Massachusetts	4,460	987	+50.2	1,956	−16.5	1,517	22,013	−27.1	357,323	+6.7
Michigan	29,349	140	+5.3	1,614	−41.4	27,595	19,099	−15.0	231,164	+13.3
Minnesota	15,783	1,382	−.1	3,573	+10.8	10,828	8,706	−28.9	165,202	+8.2
Mississippi	10,846	15	−81.7	782	−36.7	10,049	4,778	−21.5	165,123	+4.8
Missouri	35,470	807	−21.0	3,037	−31.2	31,626	9,788	−47.6	332,976	+3.2
Montana	2,588	512	+58.0	1,859	−7.4	217	2,105	−24.2	50,176	+8.8
Nebraska	11,781	387	+35.3	2,100	+7.1	9,294	5,033	+3.6	58,773	+20.5
Nevada	1,491	60	−41.2	1,145	+13.0	286	682	−33.7	7,749	+2.0
New Hampshire	2,979	239	+46.6	621	+54.9	2,119	1,586	+8.0	31,364	+7.9
New Jersey	22,106	2,098	+15.2	2,210	+10.1	17,798	19,467	−24.5	294,547	−4.7
New Mexico	4,559	294	−35.9	1,041	+12.8	3,224	1,983	−8.4	56,544	−1.5
New York	40,655	9,716	+10.8	4,128	+6.0	26,811	62,007	+28.1	1,019,537	−.0
North Carolina	18,605	1,033	−30.0	1,948	−20.8	15,624	8,542	−36.2	181,398	+5.0
North Dakota	6,493	60	−33.0	388	−38.5	6,045	2,615	−3.0	43,673	+17.8
Ohio	33,592	5,460	+93.3	2,468	−63.2	25,664	24,866	−8.6	380,968	+10.1
Oklahoma	36,570	791	+60.8	1,437	+60.9	34,342	5,817	+6.2	152,259	+7.3
Oregon	10,313	249	−43.3	2,040	+30.0	8,024	5,063	+14.5	108,256	+5.2
Pennsylvania	53,831	2,805	−18.9	3,483	+50.9	47,543	27,572	−14.3	1,270,189	+1.4
Rhode Island	794	244	+190.5	241	−32.1	309	1,526	+52.8	61,518	+2.7
South Carolina	10,975	200	−8.7	1,036	−23.5	9,739	4,960	−32.7	141,453	+5.6
South Dakota	8,140	569	+27.0	1,108	−33.5	6,463	2,622	−27.2	45,161	+12.7
Tennessee	18,010	206	−66.9	1,055	+2.3	16,749	4,944	−36.3	240,971	+3.7
Texas	51,579	804	+5.2	7,709	+67.9	43,066	22,070	+13.5	274,850	+12.5
Utah	9,464	306	+41.7	1,501	+36.2	7,657	2,540	+24.8	42,573	+12.6
Vermont	880	130	−52.9	502	+32.8	248	732	−5.8	14,730	+13.1
Virginia	5,645	1,170	+14.6	2,675	+122.7	1,800	10,257	+13.2	134,378	+8.9
Washington	14,735	1,927	+288.5	249	−86.9	12,559	7,256	−1.5	200,982	+5.4
West Virginia	20,526	345	+16.2	2,021	+22.3	18,160	8,034	+10.0	131,395	+12.5
Wisconsin	18,878	2,264	−12.5	958	−17.8	15,656	11,335	−41.7	123,708	−12.1
Wyoming	2,011	154	−15.8	765	+14.0	1,092	1,957	+34.6	15,130	+19.4
District of Columbia	2,357	1,360	−4.0	785	−30.8	212	2,197	−40.9	44,727	+3.8

Table 2.—Operations of Offices of State Employment Services, December 1935

State	Placements						New applications		Active file	
	Total	Private	Percent of change from November	Public	Percent of change from November	Relief [1]	December	Percent of change from November	Dec. 31	Percent of change from Nov. 30
All States	366,563	42,528	[2] −1.0	31,980	[2] +0.9	292,055	266,254	[2] −9.7	4,112,612	[2] +4.0
Arizona	5,170	239	−27.4	472	+325.2	4,459	1,149	−3.8	13,670	+12.7
California	30,304	4,917	−19.4	3,579	−3.1	21,808	31,239	−2.5	303,338	+8.8
Colorado	5,415	296	−23.3	502	−35.1	4,617	8,256	+120.5	46,397	+28.1
Connecticut	6,110	862	−10.8	296	−23.5	4,952	5,244	+15.9	54,678	+13.6
Delaware	2,325	233	+39.5	280	+101.4	1,812	1,491	+16.7	15,780	+15.6
Florida	955	88	[3]	378	[3]	489	833	[3]	35,288	[3]
Idaho	2,572	55	−72.4	362	+36.1	2,155	1,566	−11.4	17,545	+19.5
Illinois	98,137	5,551	+8.2	1,862	+36.7	90,724	32,087	−26.8	307,000	[4]
Indiana	4,316	2,757	−5.7	925	+17.7	634	5,077	−22.5	111,711	+5.9
Iowa	5,076	1,093	−.2	1,322	+4.2	2,661	4,122	−2.5	55,824	+14.2
Kansas (not affiliated)	5,368	395	−20.5	503	+179.4	4,470	749	−24.8	24,641	+6.7
Louisiana	1,551	347	−22.2	1,199	+13.1	5	1,524	+7.6	56,307	+4.4
Massachusetts	2,621	905	+58.2	910	+3.4	806	16,118	−11.5	147,644	+12.1
Minnesota	4,204	636	−69.3	1,598	+31.4	1,970	4,215	−40.2	78,697	+5.0
Missouri	15,320	695	−18.5	528	−18.5	14,097	3,964	−59.6	130,005	+.8
Nevada	741	42	−55.8	670	+9.5	29	464	−34.8	5,078	+3.0
New Hampshire	1,508	59	−21.3	216	+98.0	1,233	867	+15.0	14,566	+10.0
New Jersey	16,439	1,924	+18.8	1,747	+18.7	12,768	16,870	−24.9	244,430	−4.5
New Mexico	1,076	78	−62.5	234	+39.3	764	643	−35.3	28,280	+2.8
New York	20,013	8,299	+11.8	2,318	+3.3	9,396	52,601	+40.2	663,631	−.2
North Carolina	18,605	1,033	−30.0	1,948	−20.8	15,624	8,542	−36.2	181,398	+5.0
North Dakota	1,046	12	−82.1	39	−4.9	995	339	−11.3	4,764	+27.6
Ohio	18,933	4,370	+240.1	1,079	−78.7	13,466	19,084	−7.1	226,555	+10.8
Oklahoma	6,840	567	+49.6	88	+87.2	6,185	1,314	+.2	28,548	+9.3
Oregon	6,987	185	−43.9	1,060	+119.5	5,742	3,021	+25.6	77,470	+3.6
Pennsylvania	31,035	1,970	−27.0	1,568	+178.5	27,497	17,056	−19.3	782,838	+1.0
Rhode Island	547	216	+157.1	195	−13.7	136	1,417	−53.0	55,337	+2.7
South Dakota	7,167	495	[3]	970	[3]	5,702	2,288	[3]	39,727	[3]
Tennessee	9,421	105	−78.5	590	+21.1	8,726	3,116	−20.5	103,813	+3.6
Texas	12,327	28	−72.0	1,684	+118.1	10,615	5,940	+8.0	64,461	+14.8
Vermont	880	130	−52.9	502	+32.8	248	732	−5.8	14,730	+13.1
Virginia	702	416	+33.3	128	−27.7	158	826	−8.6	19,525	+3.0
West Virginia	5,422	197	−5.3	380	+35.7	4,845	1,804	−3.2	27,478	+13.0
Wisconsin	13,835	1,857	−8.9	555	+2.2	11,423	8,321	−34.9	79,700	+1.6
Wyoming	1,238	116	+65.7	490	+44.1	632	1,178	+108.1	7,031	+29.1
District of Columbia	2,357	1,360	−4.0	785	−30.8	212	2,197	−40.9	44,727	+3.8

[1] Includes only security wage placements on relief works projects.
[2] Computed from comparable reports only.
[3] First month of operation as S. E. S.
[4] Not comparable due to addition of 135,000 relief applications during July through December 1935 not previously reported.

Table 3.—Operations of Offices of the National Reemployment Service, December 1935

State	Placements						New applications		Active file	
	Total	Private	Percent of change from November	Public	Percent of change from November	Relief[1]	December	Percent of change from November	Dec. 31	Percent of change from Nov. 30
All States	427,779	18,911	[2] −3.6	54,665	[2] +0.7	354,203	215,648	[2] −10.3	4,841,405	[2] +6.2
Alabama	10,863	182	+8.3	368	−69.6	10,313	5,468	+13.5	143,782	+7.6
Arizona	4,172	90	−28.0	1,183	−16.5	2,899	1,466	+4.7	22,871	+7.0
Arkansas	9,775	1,204	+38.7	1,219	−22.4	7,352	9,258	+12.8	105,758	+14.7
California	10,347	776	−58.3	1,602	+22.5	7,969	6,810	+34.5	64,035	+22.3
Colorado	9,318	243	−39.1	1,188	+12.0	7,887	4,031	+27.0	51,659	+19.4
Connecticut	2,241	252	+55.6	116	−45.3	1,873	1,654	+18.8	22,982	+10.3
Florida	3,030	722	[3]	1,351	[3]	957	3,673	[3]	120,341	[3]
Georgia	7,742	1,491	−18.5	1,346	+197.8	4,905	6,083	−31.0	253,903	+2.8
Idaho	1,998	56	−39.8	467	−49.1	1,475	1,318	+14.4	17,046	+17.2
Illinois	25,409	744	−52.4	706	+35.5	23,959	8,956	−17.1	136,474	+10.8
Indiana	1,495	529	+56.5	561	+10.2	405	2,549	+9.1	84,450	+5.9
Iowa	5,051	136	+12.4	1,597	−32.1	3,318	3,385	+36.3	40,483	+21.0
Kansas	13,015	439	−18.6	2,578	+122.8	9,998	3,024	−22.9	86,246	+5.6
Kentucky	2,924	410	+79.8	1,855	+25.6	659	10,457	+17.5	221,991	+6.1
Maine	5,372	366	+60.5	1,724	+76.8	3,282	3,007	−47.4	46,687	+15.8
Maryland	8,826	252	−21.7	669	−7.5	7,905	5,274	−25.2	114,333	+5.9
Massachusetts	1,839	82	−3.5	1,046	−28.5	711	5,895	−50.8	209,679	+3.2
Michigan	29,349	140	+5.3	1,614	−41.4	27,595	19,099	−15.0	231,164	+13.3
Minnesota	11,579	746	−33.0	1,975	−1.5	8,858	4,491	−13.5	86,505	+11.4
Mississippi	10,846	15	−81.7	782	−36.7	10,049	4,778	−21.5	165,123	+4.8
Missouri	20,150	112	−33.7	2,509	−33.4	17,529	5,824	−34.3	202,971	+4.8
Montana	2,588	512	+58.4	1,859	−7.4	217	2,105	−24.2	50,176	+8.8
Nebraska	11,781	387	+35.3	2,100	+7.1	9,294	5,033	+3.6	58,773	+20.5
Nevada	750	18	+15.7	475	+18.5	257	218	−31.2	2,671	+.2
New Hampshire	1,471	180	+104.5	405	+6.3	886	719	+9.7	16,798	+6.2
New Jersey	5,667	174	−13.4	463	−13.6	5,030	2,597	−21.5	50,117	−5.6
New Mexico	3,483	216	−13.9	807	+6.9	2,460	1,340	+14.5	28,264	−5.4
New York	20,642	1,417	+5.0	1,810	+9.6	17,415	9,406	−13.5	355,906	+.3
North Dakota	5,447	48	−57.1	349	−40.8	5,050	2,276	−1.7	38,909	+16.7
Ohio	14,659	1,090	−30.4	1,371	−12.5	12,198	5,782	−13.0	154,413	+9.2
Oklahoma	29,730	224	+98.2	1,349	+59.4	28,157	4,503	+8.0	123,711	+6.9
Oregon	3,326	64	−41.3	980	−9.8	2,282	2,042	+1.4	30,786	+9.6
Pennsylvania	22,796	835	+9.6	1,915	+9.7	20,046	10,516	−4.7	487,351	+2.0
Rhode Island	247	28	.0	46	−64.3	173	109	−50.2	6,181	+2.8
South Carolina	10,975	200	−8.7	1,036	−23.5	9,739	4,960	−32.7	141,453	+5.6
South Dakota	973	74	[4]	138	[4]	761	334	[4]	5,434	[4]
Tennessee	8,589	101	−24.1	465	−14.5	8,023	1,828	−52.4	137,158	+3.8
Texas	39,252	776	+16.9	6,025	+57.7	32,451	16,130	+15.7	210,389	+11.8
Utah	9,464	306	+41.7	1,501	+36.2	7,657	2,540	+24.8	42,573	+12.6
Virginia	4,943	754	+6.3	2,547	+148.7	1,642	9,431	+15.6	114,853	+9.9
Washington	14,735	1,927	+288.5	249	−86.9	12,559	7,256	−1.5	200,982	+5.4
West Virginia	15,104	148	+66.2	1,641	+19.5	13,315	6,230	+14.5	103,917	+12.4
Wisconsin	5,043	407	−25.7	403	−35.2	4,233	3,014	−54.8	44,008	−29.3
Wyoming	773	38	−66.4	275	−16.9	460	779	−12.3	8,099	+12.0

[1] Includes only security-wage placements on relief works projects.
[2] Computed from comparable reports only.
[3] Not comparable due to transfer of Tampa office from N. R. S. to S. E. S.
[4] Not comparable due to transfer of a majority of the offices from N. R. S. to S. E. S.

Table 4.—Veterans' Activities of Offices of Combined State Employment and National Reemployment Services, December 1935

State	Placements [1]		New applications		Active file	
	December	Percent of change from November	December	Percent of change from November	Dec. 31	Percent of change from Nov. 30
United States	58,027	+14.8	21,055	−7.0	551,377	+6.9
Alabama	620	+9.0	174	−1.1	8,091	+7.1
Arizona	270	−31.5	162	+14.1	2,370	+12.0
Arkansas	493	−7.0	315	+65.8	5,227	+13.4
California	4,017	−8.0	3,176	+12.5	33,267	+9.2
Colorado	941	+22.5	484	+90.6	5,790	+18.4
Connecticut	662	+1.4	288	−1.0	5,714	+9.2
Delaware	136	+17.2	36	−12.2	950	+11.6
Florida	204	−38.4	184	+21.9	7,942	+7.3
Georgia	410	−40.2	199	−15.0	11,102	+2.9
Idaho	290	−3.3	139	−13.1	2,060	+22.0
Illinois	10,601	+277.1	2,012	−32.2	34,160	+45.3
Indiana	535	−32.9	338	−16.3	14,400	+5.6
Iowa	1,146	+58.3	293	−3.3	7,435	+22.8
Kansas	1,378	−14.2	191	+49.2	7,312	+5.3
Kentucky	264	−6.0	291	+19.8	13,487	+1.0
Louisiana	182	+11.0	86	+62.3	4,456	+6.4
Maine	489	+134.0	142	−50.0	3,590	+12.3
Maryland	698	−9.4	177	−6.3	6,430	+3.0
Massachusetts	387	−25.0	912	−27.2	22,457	+4.4
Michigan	1,963	+84.0	1,134	−23.2	15,305	+11.1
Minnesota	1,331	−32.1	334	−36.6	13,103	+7.9
Mississippi	281	−24.3	100	+20.5	6,280	+4.5
Missouri	2,005	−1.9	631	−21.7	22,723	+11.1
Montana	300	+35.7	84	−9.7	3,090	+11.1
Nebraska	915	+60.2	165	+6.5	3,744	+17.3
Nevada	141	−20.8	40	−25.9	413	+1.7
New Hampshire	263	−7.7	67	+21.8	2,340	+4.6
New Jersey	1,664	+1.5	739	−33.1	21,092	−2.7
New Mexico	256	−59.0	94	+30.6	3,376	+2.2
New York	3,415	+58.9	2,202	+30.1	60,214	−.6
North Carolina	793	+8.2	203	−27.8	7,885	+2.7
North Dakota	383	+42.9	79	−6.0	2,162	+14.6
Ohio	2,404	−42.4	1,022	−5.4	26,801	+9.0
Oklahoma	1,664	+87.8	196	+3.7	9,795	−6.3
Oregon	1,347	+119.0	279	+7.7	7,654	+4.2
Pennsylvania	4,422	−13.6	1,141	−6.7	62,380	+4.8
Rhode Island	146	−8.7	80	−24.5	3,651	+1.4
South Carolina	431	+7.8	206	+73.1	6,260	+6.0
South Dakota	684	+41.3	113	+16.5	2,883	+14.7
Tennessee	854	−35.4	180	−10.9	12,847	+1.5
Texas	2,789	−21.4	615	+7.7	15,900	+8.3
Utah	691	+13.5	72	+38.5	2,774	+12.1
Vermont	44	−37.1	15	−11.8	522	+13.5
Virginia	450	+77.9	407	+61.5	6,668	+6.3
Washington	1,377	+42.4	263	+17.4	14,090	+3.7
West Virginia	1,293	+128.8	195	−4.4	7,243	+9.2
Wisconsin	1,445	−34.7	561	−42.6	9,294	−10.5
Wyoming	222	+12.7	113	+61.4	1,131	+15.4
District of Columbia	331	+17.4	126	−43.2	3,517	+2.9

[1] Includes public, private, and work-relief project placements.

Table 5.—Operations of United States Employment Service, November 1935

[Reports of previously unreported services and revised totals]

Operations of offices of combined State employment and National Reemployment Services, November 1935

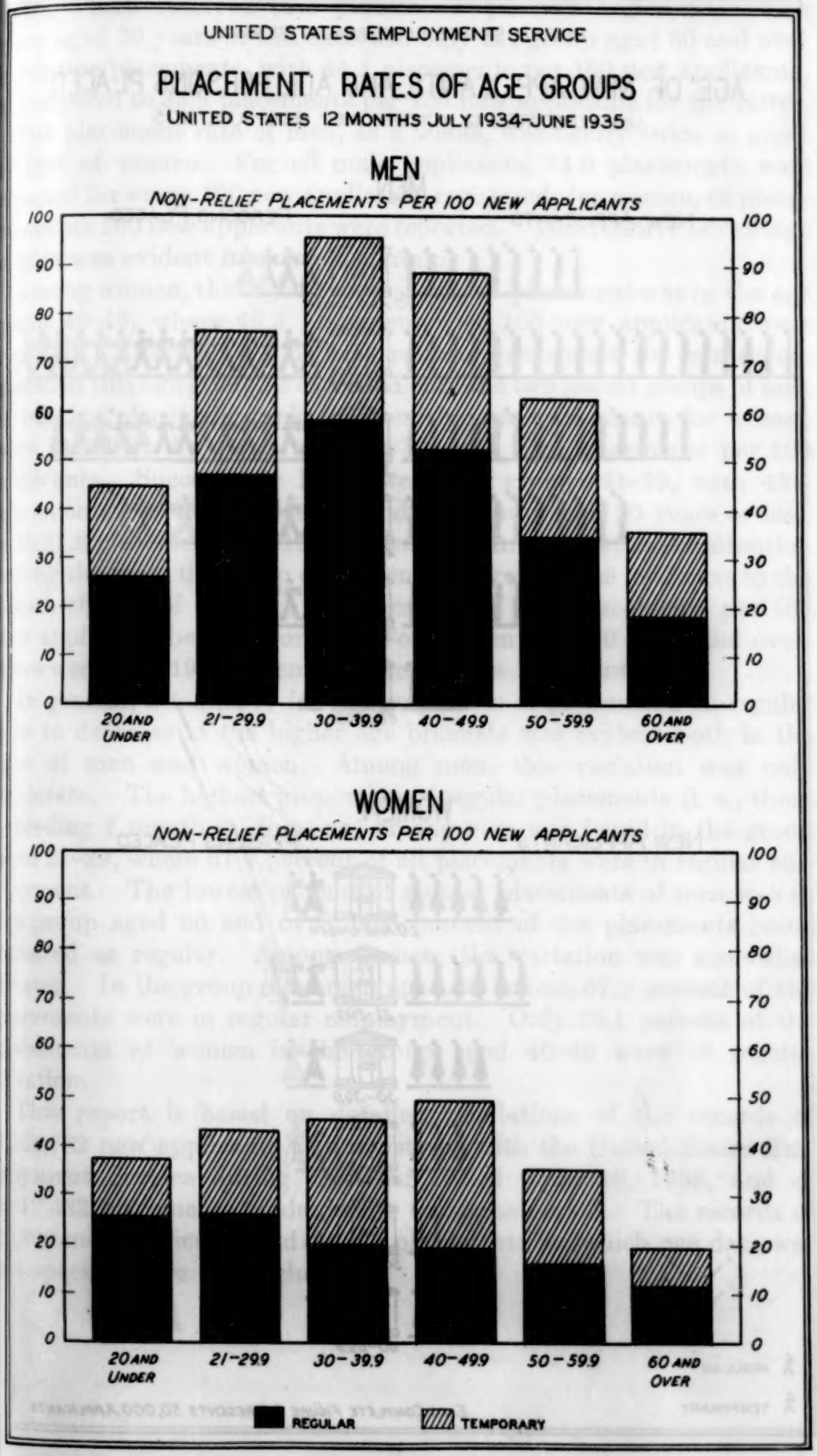
State	Placements				New applications		Total applications		Active file	
	Total	Public and private	Percent of change from October	Relief[1]	November	Percent of change from October	November	Percent of change from October	November	Percent of change from October
United States	677,545	149,279	−39.4	528,266	526,227	−17.2	1,109,195	−3.2	8,387,179	−4.0
Alabama	9,818	1,389	−43.9	8,429	4,819	−30.5	17,682	−1.6	133,666	−5.5
Illinois	34,889	8,577	−31.4	26,312	46,112	+8.5	82,371	+4.4	294,756	−.9
Kansas	16,702	2,373	−32.9	14,329	4,919	−.0	13,084	+10.8	104,785	−27.3
Minnesota	21,846	6,408	−46.1	15,438	12,243	−9.9	30,685	−7.6	152,617	+4.8
Operations of offices of State employment services, November 1935										
All States	283,733	72,741	−31.7	210,992	282,798	−21.5	530,983	−8.8	3,759,455	−1.4
Illinois	20,842	6,492	−25.5	14,350	35,310	+3.1	54,348	+4.9	171,551	−5.7
Kansas (not affiliated)	4,316	677	−40.8	3,639	996	−15.7	3,054	−13.0	23,091	−23.0
Minnesota	6,070	3,289	−28.1	2,781	7,050	−8.2	12,335	−21.0	74,967	+6.3
Operations of offices of National Reemployment Service, November 1935										
All States	393,812	76,538	−45.3	317,274	243,429	−11.5	578,212	+2.3	4,627,724	−6.0
Alabama	9,818	1,389	−43.9	8,429	4,819	−30.5	17,682	−1.6	133,666	−5.5

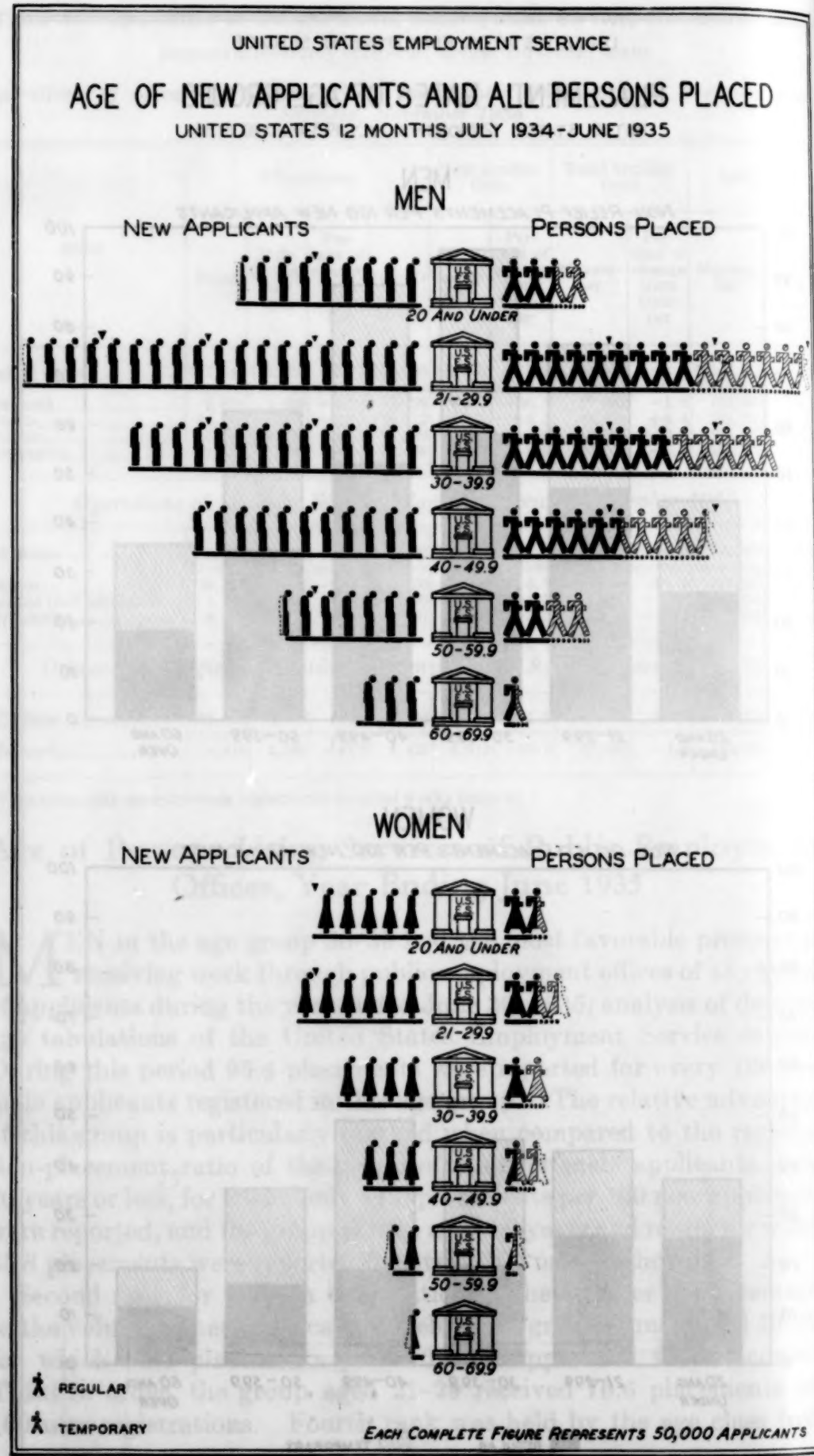
[1] Includes only security-wage placements on relief works projects.

Age of Persons Using Services of Public Employment Offices, Year Ending June 1935

MEN in the age group 30–39 had the most favorable prospect of receiving work through public employment offices of any group of applicants during the year ended June 30, 1935, analysis of detailed age tabulations of the United States Employment Service reveals. During this period 95.4 placements were reported for every 100 new male applicants registered in this age group. The relative advantage of this group is particularly marked when compared to the registration-placement ratio of the group of younger male applicants, aged 20 years or less, for which only 44.3 placements per 100 new applicants were reported, and the group of men aged 60 years and more, for which 35.8 placements were reported for every 100 new applicants.

Second rank for men, in the relation of the number of placements to the volume of new applications, fell to the group of men aged 40–49, for which 88.5 placements per 100 new applicants were recorded. Third in order, the group aged 21–29 received 76.6 placements per 100 new registrations. Fourth rank was held by the age class from


UNITED STATES EMPLOYMENT SERVICE
PLACEMENT RATES OF AGE GROUPS
UNITED STATES 12 MONTHS JULY 1934-JUNE 1935
MEN
NON-RELIEF PLACEMENTS PER 100 NEW APPLICANTS
100
90
80
70
60
50
40
30
20
10
0
20 AND UNDER
21-29.9
30-39.9
40-49.9
50-59.9
60 AND OVER
WOMEN
NON-RELIEF PLACEMENTS PER 100 NEW APPLICANTS
REGULAR
TEMPORARY


UNITED STATES EMPLOYMENT SERVICE
AGE OF NEW APPLICANTS AND ALL PERSONS PLACED
UNITED STATES 12 MONTHS JULY 1934-JUNE 1935
MEN
NEW APPLICANTS
PERSONS PLACED
20 AND UNDER
21-29.9
30-39.9
40-49.9
50-59.9
60-69.9
WOMEN
NEW APPLICANTS
PERSONS PLACED
20 AND UNDER
21-29.9
30-39.9
40-49.9
50-59.9
60-69.9
REGULAR
TEMPORARY
EACH COMPLETE FIGURE REPRESENTS 50,000 APPLICANTS

50–59, which received 62.5 placements per 100 registrants. The group aged 20 years or less exceeded only the group aged 60 and over in relative placements, with 44.3 placements per 100 new applicants, as compared to 35.8 placements per 100 new applicants for the latter.

The placement rate of men, as a whole, was nearly twice as great as that of women. For all male applicants, 74.9 placements were reported for every 100 new applicants registered; for women, 42 placements per 100 new applicants were reported. This relative advantage of men was evident in every age group.

Among women, the highest probability of placement was in the age group 40–49, where 49.3 placements per 100 new applicants were reported. Although the highest ratio of placement for women occurred in this age group, it exceeded only the two lowest groups of men in relative placement rank. Second highest placements for women were found in the group aged 30–39, with 45.4 placements per 100 applicants. Successively lower were the groups 21–29, with 43.4 placements per 100 applicants, and the group aged 20 years or less, with 37.8 placements per 100 applicants. In contrast to the situation among the men, the group of women aged from 50–59 held next to the lowest chance of securing placement, only 35.3 placements per 100 new applicants being reported. For women aged 60 years and over, there were only 19.4 placements per 100 new applicants.

In general, a tendency for the proportion of placements on regular jobs to decrease in the higher age brackets was evident both in the case of men and women. Among men, this variation was only moderate. The highest proportion of regular placements (i. e., those exceeding 1 month in duration) among men was found in the group aged 21–29, where 61.4 percent of all placements were in regular employment. The lowest percent of regular placements of men was in the group aged 60 and over, 50.3 percent of the placements being reported as regular. Among women, the variation was somewhat greater. In the group of women aged 20 or less, 67.9 percent of the placements were in regular employment. Only 39.1 percent of the placements of women in the group aged 40–49 were of regular duration.

This report is based on detailed tabulations of the records of 4,054,782 new applicants who registered with the United States Employment Service during the year ended June 30, 1935, and of 2,712,482 placements made during the same period. The records of 22,890 new applicants and 18,398 placements for which age data was not specified, are not included.

Length of Unemployment of New Applicants at Public Employment Offices

THE greater prevalence of protracted unemployment among job seekers receiving relief than among self-supporting persons looking for work is illustrated by a comparison of the records of new applicants who registered with the United States Employment Service throughout the country during September 1935. Detailed tabulations show that the median length of unemployment of totally unemployed job registrants on relief who had previous work experience was 10.5 months. Only 5.8 percent of the job applicants with relief status had any kind of employment at the time of registration. By contrast, the median length of unemployment of the nonrelief group with previous employment experience was but 4.6 months, and 9.5 percent of the nonrelief group had employment at the time of registration.

Among the registrants with relief status, 20.8 percent reported their last continuous unemployment as not exceeding 1 month's duration and 12.1 percent additional reported continuous unemployment of 6 months or less. Including relief registrants working at time of employment registration, 38.7 percent of the applicants with relief status had been totally unemployed for less than 6 months. In addition, 5.2 percent of the relief job seekers were recent students and 9.3 percent were persons not ordinarily employed. This latter group was composed principally of housewives.

At the other end of the scale, 46.7 percent reported unemployment of over 6 months' duration, and 15.8 percent of the job seekers with relief status reported continuous unemployment exceeding 4 years. Eleven percent of the relief applicants had been unemployed from 2 to 4 years continuously. The group unemployed more than 6 months but not more than 1 year formed 10.2 percent of the total, and relief registrants unemployed more than a year but less than 2 years made up 9.7 percent of the total applicants with relief status.

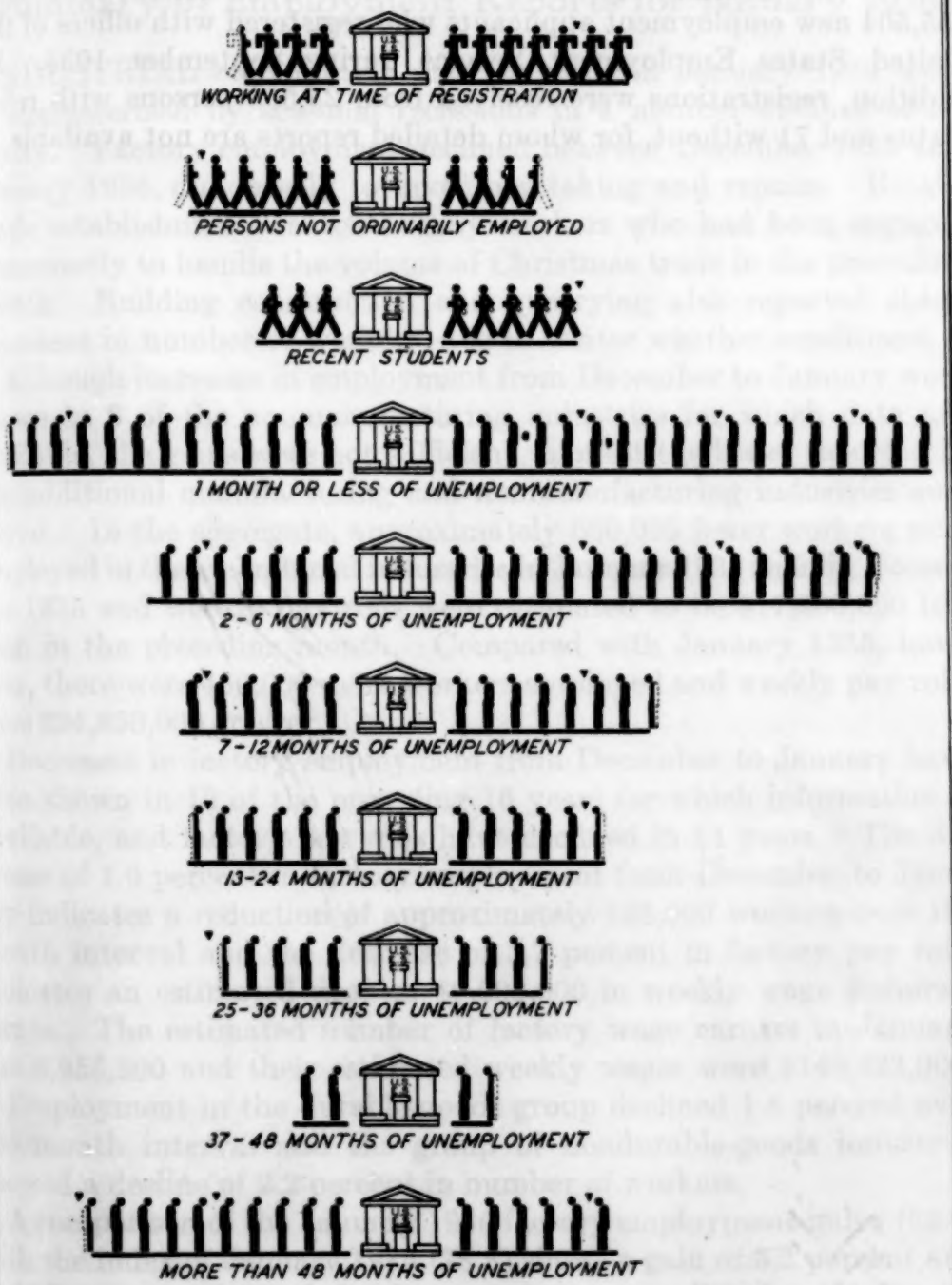
Work seekers without relief status showed a much heavier concentration in the periods of short unemployment. Registrants unemployed 1 month or less constituted 24.6 percent of the nonrelief group and another 21.3 percent had been unemployed less than 6 months. Recent students accounted for 6.8 percent of the nonrelief total. A group constituting 4.8 percent of the registrants represented persons not ordinarily employed.

Only 33.0 percent of the nonrelief registrants reported unemployment exceeding 6 months in duration. The group of nonrelief regis-

UNITED STATES EMPLOYMENT SERVICE

LENGTH OF UNEMPLOYMENT OF NEW APPLICANTS

SEPTEMBER 1935



EACH COMPLETE FIGURE REPRESENTS 5,000 APPLICANTS

49645—36——15

trants unemployed over 6 but less than 12 months amounted to 10.1 percent of the total, and the group unemployed over 1 year but less than 2 constituted 7.9 percent. Unemployed more than 2 years but not more than 4 were 6.6 percent of the nonrelief group, and 8.3 percent reported unemployment of over 4 years.

A chart showing the classification of relief and nonrelief work registrants by length of unemployment appears on page 739.

All the foregoing comparisons are based on the tabulated records of 655,504 new employment applicants who registered with offices of the United States Employment Service during September 1935. In addition, registrations were received from 25,558 persons with relief status and 71 without, for whom detailed reports are not available.

TREND OF EMPLOYMENT AND PAY ROLLS

Summary of Employment Reports for January 1936

INDUSTRIAL employment and pay rolls in January 1936 were characterized by seasonal recessions in a number of lines of industry. Factory employment declined between December 1935 and January 1936, due largely to inventory taking and repairs. Retail-trade establishments released many workers who had been engaged temporarily to handle the volume of Christmas trade in the preceding month. Building construction and quarrying also reported sharp decreases in number of workers, due to winter weather conditions.

Although increases in employment from December to January were shown in 9 of the nonmanufacturing industries for which data are available, the gains were not sufficient to offset the losses reported in the additional manufacturing and nonmanufacturing industries surveyed. In the aggregate, approximately 660,000 fewer workers were employed in these combined industries in January 1936 than in December 1935 and weekly pay rolls were estimated to be $17,500,000 less than in the preceding month. Compared with January 1935, however, there were 460,000 more workers employed and weekly pay rolls were $24,850,000 greater.

Decreases in factory employment from December to January have been shown in 12 of the preceding 16 years for which information is available, and factory pay rolls have declined in 14 years. The decrease of 1.9 percent in factory employment from December to January indicates a reduction of approximately 138,000 workers over the month interval and the decrease of 5.7 percent in factory pay rolls indicates an estimated drop of $9,000,000 in weekly wage disbursements. The estimated number of factory wage earners in January was 6,955,800 and their estimated weekly wages were $146,923,000.

Employment in the durable-goods group declined 1.6 percent over the month interval and the group of nondurable-goods industries showed a decline of 2.2 percent in number of workers.

A comparison of the January 1936 factory employment index (83.0) with the index of January 1935 (78.8) shows a gain of 5.3 percent and a similar comparison of the January 1936 pay-roll index (72.2) with the January 1935 index (64.3) shows an increase of 12.3 percent in weekly wages. These percentage gains indicate that approximately

348,000 more workers were on factory pay rolls in January 1936 than in January 1935, and factory pay rolls were more than $16,200,000 greater than in the corresponding month of 1935. The gain in factory employment over the year was concentrated in the durable-goods group, which showed an increase of 12.5 percent. Employment in the nondurable-goods group was 0.3 percent less than in January 1935.

Twenty-eight of the ninety manufacturing industries surveyed showed gains in number of workers from December to January. The largest percentage gains were seasonal in character and were in the millinery, fertilizer, boot and shoe, and agricultural-implements industries.

The most pronounced declines in employment over the month interval were also seasonal and were shown in the cottonseed (oil, cake, meal), marble-slate-granite, cement, confectionery, cigar and cigarette, stove, shirt and collar, brick-tile-terra cotta, jewelry, men's furnishings, canning and preserving, and radio and phonograph industries.

Employment in the automobile industry showed a decline of only 0.1 percent from December to January but pay rolls fell off sharply. In the 3 immediately preceding years, employment and pay rolls in this industry have registered pronounced gains in January over the preceding month. Due to the recent advancement of production schedules in the automobile industry to an earlier period, the customary expansion in this industry in January was lacking this year. Consequently, the general declines in factory employment and pay rolls were not offset by gains in this industry such as those which had occurred in the immediately preceding years.

The net loss in employment from December to January in the nonmanufacturing industries surveyed was estimated to be 520,000 and weekly wage payments were $8,500,000 less. The retail trade establishments, which had approximately 480,000 fewer workers in January 1936 than in the preceding month, accounted for a large part of the decline in the nonmanufacturing industries.

The general merchandising group of retail establishments, which includes department, variety, and general-merchandising stores and mail-order houses, showed a drop of 32.2 percent in number of workers. Employment in other lines of retail trade showed a net decline of 5.2 percent. Some of the separate lines in which sharp declines were reported were apparel stores and furniture. Employment in retail food stores showed a slight decline from December to January.

In addition to sharp seasonal declines in employment in quarrying and nonmetallic mining and private building construction, small decreases were shown in crude-petroleum producing, power and light, dyeing and cleaning, and wholesale trade.

Although a net decline in employment was shown in wholesale trade, gains in employment were reported in several lines, among which were the automotive, chemical-drug, electrical goods, machinery, and assemblers and buyers groups. The more important branches of wholesale trade in which decreases in employment were reported over the month interval were food products, dry goods and apparel, petroleum and petroleum products, groceries, hardware, and farm products.

Increases in employment were reported in both anthracite and bituminous-coal mining, the severe winter weather conditions causing greater demands for fuel. Metalliferous mines continued to absorb additional workers, the January employment index (54.2) reaching the highest point recorded since September 1931.

Telephone and telegraph companies and electric-railroad and motor-bus operation companies reported more workers employed than in the preceding month. Employment in year-round hotels and laundries showed a gain over the month interval, and insurance companies and brokerage offices also reported additional workers on their pay rolls. The gain in employment in brokerage offices was attributable to increased stock turn-over and continued the increases which began in May.

Average hours worked per week in all manufacturing industries combined showed a decline of 4.3 percent from December to January, due primarily to inventory-taking and repairs. Average hourly earnings, on the other hand, were 0.3 percent higher in January than in the preceding month. Weekly earnings decreased 3.9 percent over the month interval, due to the decrease in average hours worked per week.

In the group of nonmanufacturing industries, decreases in the average number of hours worked per week were generally shown between December and January. The most pronounced decline (6.1 percent) was in anthracite mining and was due to the observance of the New Year's holiday during the pay period reported. Average hourly earnings for the most part showed minor fluctuations. The outstanding change was in the general merchandising group of retail establishments in which the release of many low-paid temporary workers, who had been engaged to handle the Christmas trade, resulted in an increase of 11.3 percent in average hourly rates between December and January. Weekly earnings conformed generally to the changes in average hours worked per week in the several industries surveyed.

Data concerning class I railroads—that is, roads having yearly operating revenues of $1,000,000 or over—were not included in the preceding discussion. According to preliminary reports of the Interstate Commerce Commission, 970,542 workers (exclusive of executives and officials) were employed in January by class I railroads. This is an increase of less than 0.1 percent in comparison with December when 970,474 workers were employed. Information concerning pay rolls in January was not available at the time this report was prepared. The total compensation of all employees except executives and officials in December was $134,649,190, compared with $132,687,315 in November, a gain of 1.5 percent. The Commission's preliminary indexes of employment, taking the 3-year average 1923–25 as 100, are 55.0 for January and 55.1 for December. The final November index is 55.8.

Decreases in the number of wage earners employed on the various types of construction projects featured the public employment reports for January. Substantial decreases in employment were shown on construction projects financed by the Public Works Administration and on construction projects financed by regular governmental appropriations and a small loss was reported on construction projects financed by the Reconstruction Finance Corporation. On the other hand, the number of wage earners employed on The Works Program during January increased approximately 450,000. The level of employment in January on Federal projects was 14.7 percent higher than in December and 18.0 percent higher on projects operated by the Works Progress Administration. In the regular agencies of the Federal Government, small gains were registered in the legislative and military branches; moderate decreases, however, occurred in the executive and judicial services.

In relief work, employment declined in Civilian Conservation Camps and on the Emergency Work program. The Emergency Work program which has been virtually completed employed less than 20,000 workers in January.

Private employment.—Table 1 shows employment and pay-roll indexes and average weekly earnings in January 1936 for all manufacturing industries combined, for certain nonmanufacturing industries, and for class I steam railroads, with percentage changes over the month and year intervals, except in the few industries referred to in footnotes, for which certain items cannot be computed.

Table 1.—Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, January 1936 (Preliminary Figures)

Industry	Employment			Pay roll			Average weekly earnings		
	Index January 1936	Percentage change from—		Index January 1936	Percentage change from—		January 1936	Percentage change from—	
		December 1935	January 1935		December 1935	January 1935		December 1935	January 1935
	(*1923–25 = 100*)			(*1923–25 = 100*)					
All manufacturing industries combined	83.0	−1.9	+5.3	72.2	−5.7	+12.3	$21.31	−3.9	+6.6
Class I steam railroads [1]	55.0	−.2	+2.4	[2]	[2]	[2]	[2]	[2]	[2]
	(*1929 = 100*)			(*1929 = 100*)					
Coal mining:									
Anthracite	59.1	+3.0	−6.0	54.4	−1.8	−5.4	26.77	−4.7	+.8
Bituminous	79.8	+.9	−.3	70.6	+1.6	+18.5	22.66	+.8	+18.8
Metalliferous mining	54.2	+1.3	+22.5	41.7	−3.4	+38.8	23.75	−4.7	+13.4
Quarrying and nonmetallic mining	39.4	−8.7	+6.6	25.5	−14.2	+22.3	15.96	−6.1	+14.7
Crude-petroleum producing	71.1	−1.1	−5.0	55.7	−7.1	+.3	28.68	−6.0	+5.7
Public utilities:									
Telephone and telegraph	70.1	+.7	−.6	75.0	−.9	+1.5	28.81	−1.6	+2.1
Electric light and power and manufactured gas	86.1	−.8	+4.1	84.8	−1.4	+8.7	31.63	−.6	+4.5
Electric-railroad and motor-bus operation and maintenance	70.7	+.3	−.7	65.0	−1.7	+3.3	29.71	−1.9	+4.1
Trade:									
Wholesale	85.6	−1.4	+1.7	66.6	−3.1	+4.2	27.58	−1.7	+2.5
Retail	80.7	−13.2	+1.5	62.1	−10.3	+4.0	21.30	+6.0	+2.5
General merchandising	89.3	−32.2	+2.2	76.8	−26.5	+4.5	18.58	+8.4	+2.2
Other than general merchandising	78.4	−5.2	+1.3	59.1	−4.7	+3.9	23.33	+.6	+2.6
Hotels (year-round) [3]	81.9	+1.3	+2.0	64.9	+1.1	+4.3	13.92	−.2	+2.3
Laundries	81.5	+.5	+2.3	68.3	+1.2	+6.8	15.90	+.7	+4.4
Dyeing and cleaning	71.5	−2.7	+1.6	51.6	−2.6	+2.4	17.40	+.1	+.7
Brokerage	[2]	+3.0	+17.7	[2]	+4.6	+23.5	36.49	+1.5	+4.9
Insurance	[2]	+.3	+.9	[2]	+1.9	+4.2	37.86	+1.5	+3.2
Building construction	[2]	−13.0	+3.9	[2]	−14.0	+13.6	24.62	−1.2	+9.2

[1] Preliminary; source, Interstate Commerce Commission.
[2] Not available.
[3] Cash payments only; the additional value of board, room, and tips cannot be computed.

Public employment.—Employment created by the Federal Government is of two general classes: (1) Employment in either the executive, judicial, legislative, or military services, on the various construction projects financed by the Federal Government, and on projects financed by The Works Program; and (2) employment on relief work, where the work itself and the system of payment is of an emergency-relief character. Data for these two types of Federal employment are shown separately in table 2.

Table 2.—Summary of Federal Employment and Pay Rolls, January 1936 (Preliminary Figures)

Class	Employment		Percentage change	Pay roll		Percentage change
	January 1936	December 1935		January 1936	December 1935	
Federal service:						
Executive	805,453	[1] 816,223	−1.3	$124,676,588	$132,319,454	−5.8
Judicial	1,877	1,933	−2.9	492,770	512,027	−3.8
Legislative	4,989	4,975	+.3	1,182,990	1,187,061	−.3
Military	286,589	285,673	+.3	22,534,611	22,301,838	+1.0
Construction projects:						
Financed by P. W. A.	[2] 197,820	[3] 231,692	−14.6	[2] 14,399,381	[3] 16,360,315	−12.0
Financed by R. F. C.	[4] 7,560	7,786	−2.9	[4] 850,271	869,459	−2.2
Financed by regular governmental appropriations	46,895	56,780	−17.4	3,990,725	3,707,963	+7.6
The Works Program: [5]						
Federal projects	248,929	217,027	+14.7	11,179,541	10,195,537	+9.7
Projects operated by W. P. A.	2,755,802	2,335,610	+18.0	127,054,184	91,552,345	+38.8
Relief work:						
Emergency Work program	20,000	68,558	−70.8	500,000	1,844,813	−72.9
Emergency Conservation Work	[6] 471,215	[7] 506,605	−7.0	[6] 20,625,454	[7] 21,905,516	−5.8

[1] Revised.
[2] Includes 23,740 wage earners and $1,128,635 pay roll covering P. W. A. projects financed from E. R. A. A., 1935 funds.
[3] Includes 9,203 wage earners and $446,783 pay roll covering P. W. A. projects financed from E. R. A. A., 1935 funds.
[4] Includes 44 employees and pay roll of $1,625 on projects financed by R. F. C. Mortgage Co.
[5] Data covering P. W. A. projects financed from E. R. A. A., 1935 funds are not included in The Works Program and shown only under P. W. A.
[6] 39,002 employees and pay roll of $5,450,387 included in executive service.
[7] 41,052 employees and pay roll of $5,550,475 included in executive service.

Employment and Pay Rolls, December 1935: Revised Figures

THIS article presents the detailed figures on volume of employment, as compiled by the Bureau of Labor Statistics for the month of December 1935. The tabular data are the same as those published in the Employment and Pay Rolls pamphlet for December, except for certain revisions or corrections.

Part I—Private Employment

Manufacturing Industries

Employment, Pay Rolls, and Earnings in December 1935

THE decline of 0.4 percent in factory employment in December carried the Bureau of Labor Statistics index to 84.6 percent of the 1923–25 average. With the exception of the 2 months immediately preceding, this was the highest point reached since November 1930. The smaller than seasonal decline in employment from November to December 1935 was due to the fact that 40 of the 90 manufacturing industries reported gains in employment. A number of the industries reporting increases usually experience an employment decline in December. The favorable comparison is further noteworthy because of the fact that the automobile industry did not influence the monthly

movement in December 1935 to the extent usual in recent years. Employment in manufacturing in December 1935 shows an increase of 8.2 percent over December 1934 and 36.2 percent over December 1932.

Despite the decline in factory employment, weekly wage disbursements in December were 2.8 percent greater than in November. This brought the index of factory pay rolls to 76.6, the highest level reached since November 1930. The rise in pay rolls in December is explained, in part, by the fact that in November pay rolls were depressed by the observance of Armistice Day in many important manufacturing centers.

Among the separate industries, the most pronounced gains in employment over the month interval were in the electric- and steam-car building industry (9.1 percent), boots and shoes (6.4 percent), wirework (4.4. percent), and agricultural implements (4.1 percent). Employment in the cast-iron pipe industry increased 3.1 percent and gains of 3 percent each were shown in the iron and steel forgings and the textile machinery industries.

Seasonal declines in employment were reported in December in beet sugar (39.2 percent), canning and preserving (18.9 percent), radios and phonographs (15.3 percent), jewelry (9.5 percent), cement (9.4 percent), stoves (8 percent), and cottonseed—oil, cake, meal (7.8 percent).

The indexes of factory employment and pay rolls are computed from data supplied by representative establishments in 90 manufacturing industries. The base used in computing these indexes is the 3-year average, 1923–25. In December 1935, reports were received from 23,568 establishments employing 4,006,208 workers whose weekly earnings were $89,314,655. The employment reports received from these cooperating establishments cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries included in the Bureau of Labor Statistics monthly survey.

Per capita weekly earnings in all manufacturing industries combined were $22.29 in December, a gain of 3.1 percent over November.

Some of the establishments that report employment and pay-roll totals do not report man-hours. Consequently, average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than are used in computing per capita weekly earnings and indexes of employment and pay rolls. Average hours worked per week in all manufacturing industries combined rose 2.6 percent from November to December, the average for November having been 37.8 as against 38.8 for December. Average hourly earnings rose 0.7 percent from 56.7 to 57.1 cents. Seventy-three of

the 87 industries for which man-hour data are published showed gains in average hours worked per week, and 55 showed increases in hourly rates of pay.

Indexes of employment and pay rolls, average hours worked per week, average hourly earnings, and per capita weekly earnings in manufacturing industries in December are presented in table 1. Percentage changes from November 1935 to December 1935 and from December 1934 to December 1935 are also given in this table.

Table 1.—Employment, Pay Rolls, and Earnings in Manufacturing Industries, December 1935

Average hourly	Average hours worked	Average weekly

Table 1.—Employment, Pay Rolls, and Earnings in Manufacturing Industries, December 1935

Industry	Employment			Pay roll			Average weekly earnings [1]			Average hours worked per week [2]			Average hourly earnings [2]		
	Index December 1935 (3-year average 1923–25 =100)	Percentage change from—		Index December 1935 (3-year average 1923–25 =100)	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—	
		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934
													Cents		
All industries	**84.6**	**−0.5**	**+8.3**	**76.6**	**+2.8**	**+21.2**	**$22.29**	**+3.3**	**+11.9**	**38.8**	**+2.6**	**+10.5**	**57.1**	**+0.7**	**+1.2**
Durable goods	**75.7**	**−.5**	**+17.5**	**70.1**	**+2.9**	**+39.1**	**24.91**	**+3.5**	**+18.3**	**40.1**	**+2.3**	**+13.9**	**61.4**	**+.7**	**+2.4**
Nondurable goods	**94.2**	**−.4**	**+1.5**	**85.1**	**+2.9**	**+7.0**	**19.76**	**+3.3**	**+5.4**	**37.5**	**+2.7**	**+5.7**	**53.1**	**+.8**	**0**
Durable goods															
Iron and steel and their products, not including machinery	**76.6**	**−.3**	**+15.0**	**68.8**	**+5.7**	**+44.5**	**24.62**	**+5.9**	**+25.6**	**39.4**	**+5.1**	**+24.2**	**61.8**	**+.5**	**+.4**
Blast furnaces, steel works, and rolling mills	77.0	+1.0	+15.1	72.0	+8.4	+54.8	25.89	+7.3	+34.9	38.9	+6.9	+35.6	66.7	+.5	−.4
Bolts, nuts, washers, and rivets	83.7	+.6	+12.0	76.3	+9.6	+42.1	23.73	+9.0	+26.6	41.4	+8.4	+23.3	57.3	+.5	+1.7
Cast-iron pipe	52.8	+3.1	+8.9	34.1	+12.1	+24.5	17.46	+8.6	+14.5	35.5	+9.9	+13.9	48.7	−.8	−1.8
Cutlery (not including silver and plated cutlery) and edge tools	80.9	+.1	+5.6	71.2	+4.9	+23.6	21.70	+4.8	+17.1	40.8	+1.7	+15.7	53.7	+2.9	+1.6
Forgings, iron and steel	67.1	+3.0	+22.2	55.5	+7.7	+27.6	25.97	+4.6	+4.2	42.1	+4.2	+3.3	61.7	+.2	+1.3
Hardware	57.6	+1.3	+14.3	57.4	+3.1	+39.7	23.08	+1.7	+22.8	41.7	+1.7	+22.3	55.7	−.2	0
Plumbers' supplies	94.0	−1.7	+46.4	61.2	+2.0	+53.4	21.75	+3.7	+5.0	38.6	+3.2	+6.8	56.3	+.4	−2.4
Steam and hot-water heating apparatus and steam fittings	57.0	−3.0	+17.3	40.7	−1.9	+29.6	22.84	+1.2	+9.9	38.9	0	+8.4	58.5	+.7	+.7
Stoves	99.8	−8.0	+15.9	80.7	−6.2	+32.1	22.67	+2.0	+14.0	39.5	+1.8	+10.4	56.5	0	+1.7
Structural and ornamental metalwork	56.6	−3.3	−1.7	45.0	+.6	+14.8	21.86	+4.0	+16.8	37.6	+4.4	+14.5	58.1	−.3	+2.0
Tin cans and other tinware	92.9	−2.5	+8.7	91.5	+(3)	+14.9	20.66	+2.6	+5.9	38.2	+2.1	+3.8	54.0	+.6	+1.3
Tools (not including edge tools, machine tools, files, and saws)	73.2	+2.6	+23.4	76.0	+6.9	+45.9	23.59	+4.2	+18.1	44.0	+4.5	+19.8	53.4	−.4	−.7
Wirework	144.4	+4.4	+14.5	145.7	+7.5	+35.9	24.02	+3.0	+18.6	42.4	+3.2	+17.1	56.7	0	+1.7

[1] Average weekly earnings are computed from figures furnished by all reporting establishments. Percentage changes over year computed from indexes. Percentage changes over month in the groups and in "All industries" also computed from indexes.

[2] Computed from available man-hour data—all reporting establishments do not furnish man-hours. Percentage changes over year computed from indexes. The average hours and average hourly earnings in the groups and in "All industries" are weighted.

[3] Less than 1/10 of 1 percent.

Table 1.—Employment, Pay Rolls, and Earnings in Manufacturing Industries, December 1935—Continued

Industry	Employment			Pay roll			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	Index December 1935 (3-year average 1923–25 =100)	Percentage change from—		Index December 1935 (3-year average 1923–25 =100)	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—	
		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934
Durable goods—Continued													*Cents*		
Machinery, not including transportation equipment	**93.1**	**−0.7**	**+18.6**	**80.7**	**+2.3**	**+34.1**	**$24.62**	**+3.1**	**+13.0**	**40.1**	**+1.8**	**+11.6**	**60.8**	**+0.8**	**+1.2**
Agricultural implements	128.9	+4.1	+53.8	155.2	+7.0	+70.2	24.69	+2.8	+10.7	40.1	+2.8	+4.2	61.8	0	+5.3
Cash registers, adding machines, and calculating machines	111.4	+1.7	+11.5	96.1	+8.5	+17.6	28.32	+6.7	+5.5	41.3	+7.3	+2.6	68.9	−.4	+2.0
Electrical machinery, apparatus, and supplies	74.0	−1.9	+12.8	65.1	+.7	+24.7	24.08	+2.6	+10.3	39.3	+1.8	+11.1	61.0	+.8	+.4
Engines, turbines, tractors, and water wheels	105.3	+2.3	+37.3	79.0	+3.8	+49.9	27.46	+1.5	+8.9	39.5	+1.3	+1.7	69.5	+.1	+6.6
Foundry and machine-shop products	79.0	+1.8	+18.3	68.5	+4.9	+37.8	24.67	+3.0	+16.7	41.1	+3.0	+16.4	60.0	+.2	+.5
Machine tools	101.5	+1.4	+40.6	96.0	+6.4	+70.2	28.23	+4.9	+20.8	44.6	+4.7	+19.3	63.2	+.2	+1.7
Radios and phonographs	230.0	−15.3	+10.6	143.7	−20.1	+8.9	19.37	−5.7	−1.5	35.3	−9.5	+1.1	55.0	+4.4	−2.3
Textile machinery and parts	68.0	+3.0	+8.8	61.1	+12.3	+20.0	24.60	+9.1	+10.6	40.7	+10.9	+9.7	60.6	−1.6	+.9
Typewriters and parts	107.5	+(3)	+3.0	96.0	−3.3	−1.3	22.84	−3.3	−3.9	39.8	−2.7	−4.5	57.5	−.3	+1.3
Transportation equipment	**103.4**	**+2.4**	**+31.9**	**104.4**	**+2.9**	**+54.4**	**29.08**	**+.5**	**+17.2**	**39.3**	**−.3**	**+11.8**	**74.0**	**+.4**	**+4.1**
Aircraft	430.3	−3.9	+59.7	361.0	+.6	+54.7	26.66	+4.7	−3.1	41.9	+.7	+10.4	65.6	+.5	−9.0
Automobiles	118.2	+2.3	+33.0	118.8	+1.8	+55.5	29.72	−.5	+16.8	39.8	−1.0	+11.4	74.8	+.4	+4.8
Cars, electric- and steam-railroad	50.1	+9.1	+47.4	55.2	+16.6	+75.2	23.08	+6.9	+19.3	37.2	+5.4	+14.7	62.1	+1.5	+3.5
Locomotives	22.8	−.1	−37.5	10.6	+5.4	−36.1	24.48	+5.6	+2.9	39.0	+5.4	+5.1	62.8	+.2	−3.2
Shipbuilding	82.9	+.7	+21.0	77.2	+6.4	+39.6	26.84	+5.6	+15.1	34.3	+4.6	+13.5	77.4	+1.3	+2.7
Railroad repair shops	**55.8**	**+.2**	**+7.3**	**57.1**	**+4.8**	**+28.6**	**28.87**	**+4.6**	**+19.8**	**42.7**	**+4.7**	**+11.1**	**67.9**	**+.4**	**+7.4**
Electric railroad	64.8	−.4	−1.1	61.8	+4.3	+5.8	28.36	+4.7	+6.8	45.9	+5.3	+3.8	61.2	0	+1.3
Steam railroad	55.1	+.1	+8.0	56.9	+5.1	+30.8	28.99	+5.0	+21.4	42.4	+4.7	+12.7	68.5	+.4	+7.8
Nonferrous metals and their products	**92.3**	**−.9**	**+16.5**	**79.4**	**+1.1**	**+28.5**	**22.93**	**+2.0**	**+10.3**	**41.7**	**+1.5**	**+11.0**	**54.6**	**+.4**	**+1.0**
Aluminum manufactures	82.1	−1.0	+11.7	76.7	−.4	+20.0	22.58	+.6	+7.3	41.0	+.7	+5.9	54.5	−.4	+.6
Brass, bronze, and copper products	88.5	−.5	+19.6	73.4	+.7	+32.0	24.04	+1.2	+10.5	41.8	+1.5	+12.1	57.5	−.3	−1.6
Clocks and watches and time-recording devices	94.5	+.1	+19.6	88.8	−2.1	+35.0	21.24	−2.2	+12.8	44.0	−2.2	+11.0	48.2	−.2	+1.4
Jewelry	76.0	−9.5	+2.2	65.1	−.4	+2.7	22.89	+10.0	+.6	40.5	+5.2	+6.2	55.4	+3.7	−.6
Lighting equipment	86.9	+(3)	+24.5	84.7	+1.4	+40.9	23.09	+1.4	+13.1	42.6	+.7	+12.2	54.7	+.9	+1.2
Silverware and plated ware	71.3	−2.3	+.8	58.7	−3.0	+5.6	23.42	−.7	+4.5	40.3	−1.5	+1.6	57.5	+.7	+3.1
Smelting and refining—copper, lead, and zinc	89.7	+2.0	+20.1	65.9	+6.5	+41.4	23.72	+4.5	+17.9	42.1	+4.5	+12.2	56.3	+.2	+5.4
Stamped and enameled ware	117.0	+.7	+19.6	102.8	+1.8	+32.5	20.95	+1.1	+10.9	40.9	+.5	+10.1	51.2	+.4	+1.0
Lumber and allied products	**54.5**	**−2.7**	**+14.0**	**44.2**	**−1.8**	**+32.7**	**18.25**	**+.9**	**+16.4**	**40.7**	**+1.5**	**+15.9**	**44.6**	**−.7**	**−.5**
							18.55	+1.3	+10.3	40.8	+1.2	+13.9	45.1	0	−2.1

Lighting equipment	86.9	+(1)	+24.5	84.7	+1.4	+40.9	23.09	+1.4	+13.1	42.6	+.7	+12.2	54.7	+.9	+1.2
Silverware and plated ware	71.3	−2.3	+.8	58.7	−3.0	+5.6	23.42	−.7	+4.5	40.3	−1.5	+1.6	57.5	+.7	+3.1
Smelting and refining—copper, lead, and zinc	89.7	+2.0	+20.1	65.9	+6.5	+41.4	23.72	+4.5	+17.9	42.1	+4.5	+12.2	56.3	+.2	+5.4
Stamped and enameled ware	117.0	+.7	+19.6	102.8	+1.8	+32.5	20.95	+1.1	+10.9	40.9	+.5	+10.1	51.2	+.4	+1.0
Lumber and allied products	**54.5**	**−2.7**	**+14.0**	**44.2**	**−1.8**	**+32.7**	**18.25**	**+.9**	**+16.4**	**40.7**	**+1.5**	**+15.9**	**44.6**	**−.7**	**−.5**
Furniture	74.8	−2.8	+15.1	58.4	−1.5	+27.2	18.55	+1.3	+10.3	40.8	+1.2	+13.9	45.1	0	−2.1
Lumber:															
Millwork	46.9	−3.6	+27.8	39.0	−1.6	+58.5	19.46	+2.0	+24.1	42.2	+1.7	+23.3	46.0	+.4	+1.4
Sawmills	35.1	−2.7	+11.1	25.9	−2.2	+29.5	17.78	+.5	+17.5	39.9	+2.3	+18.5	45.2	−1.5	+.3
Turpentine and rosin	99.7	−1.0	+7.3	64.4	−2.1	+28.3	14.51	−1.1	+19.4						
Stone, clay, and glass products	**55.2**	**−2.1**	**+10.2**	**44.6**	**+1.6**	**+29.7**	**21.13**	**+3.9**	**+17.6**	**38.1**	**+2.4**	**+15.2**	**55.7**	**+.9**	**+3.0**
Brick, tile, and terra cotta	33.9	−2.0	+21.1	23.3	−.4	+52.3	17.83	+1.6	+26.1	39.4	+.8	+24.8	45.1	−.2	−2.1
Cement	45.0	−9.4	+8.2	31.1	−6.6	+29.0	20.57	+3.1	+19.2	36.0	+2.9	+16.5	57.2	+.2	+2.3
Glass	97.8	−.6	+11.9	94.2	+3.3	+31.0	22.62	+4.0	+17.4	37.8	+2.4	+9.7	60.0	+1.5	+6.6
Marble, granite, slate, and other products	27.1	−.9	+7.5	18.5	+4.7	+22.5	22.72	+5.6	+13.3	35.8	+6.9	+26.4	64.0	+.5	−7.9
Pottery	69.1	−1.3	−2.1	55.9	+2.4	+11.8	21.53	+3.8	+13.9	39.6	+3.1	+9.5	54.2	+.7	+5.9
Nondurable goods															
Textiles and their products	**96.9**	**−.1**	**+4.4**	**81.9**	**+2.8**	**+8.8**	**16.50**	**+2.8**	**+4.2**	**35.6**	**+2.6**	**+7.4**	**46.4**	**+.4**	**−2.1**
Fabrics	96.4	+.3	+2.6	85.3	+3.3	+6.4	16.43	+2.9	+3.8	37.2	+3.3	+5.1	44.1	−.2	−1.1
Carpets and rugs	82.3	−.3	+29.0	73.5	+4.3	+44.1	19.83	+4.6	+11.7	35.8	+5.3	+14.1	55.5	−.4	−.7
Cotton goods	92.2	+1.8	−4.0	81.2	+5.7	0.0	13.89	+3.9	+4.3	37.5	+4.2	+6.3	37.0	0	−1.8
Cotton small wares	90.5	+1.2	+9.0	84.5	+7.5	+19.4	18.03	+6.2	+9.5	40.0	+7.2	+6.1	45.2	−.9	+2.7
Dyeing and finishing textiles	111.0	−.6	−3.3	93.5	+6.0	−6.1	19.74	+6.5	−3.0	37.6	+6.8	−1.1	52.3	−.6	−1.8
Hats, fur-felt	83.6	+.9	+8.6	84.9	+22.0	+19.1	24.22	+20.9	+9.6	35.7	+26.1	+13.7	68.5	+.3	−3.4
Knit goods	115.2	−2.0	+4.3	113.0	−5.9	+3.5	16.83	−4.0	−.9	35.8	−4.0	+.9	47.7	−.2	−2.1
Silk and rayon goods	74.0	+2.1	−3.0	63.9	+4.9	−1.5	15.86	+2.8	+1.6	36.6	+4.0	+7.2	43.5	−.9	−4.0
Woolen and worsted goods	102.4	−.7	+19.6	84.3	+6.2	+26.6	18.89	+7.0	+5.7	38.3	+5.8	+5.7	49.4	+1.0	+.2
Wearing apparel	93.8	−1.1	+9.1	70.5	+1.9	+15.0	16.76	+3.0	+5.5	31.7	+1.0	+14.0	51.7	+1.8	−6.5
Clothing, men's [2]	89.7	+.9	+13.4	67.1	+4.1	+27.6	17.74	+3.1	+12.2	30.3	+3.8	+18.6	58.3	+.3	−5.9
Clothing, women's	120.4	−1.2	+7.9	84.0	+3.4	+8.2	17.55	+4.7	+.3	32.0	+1.6	+13.0	51.8	+3.2	−8.7
Corsets and allied garments	83.3	−2.2	−6.7	77.5	−1.6	−8.9	15.09	+.6	−2.4	31.7	+1.3	−5.9	46.8	+1.7	+6.0
Men's furnishings	106.4	−3.0	−1.8	76.4	−9.1	−1.7	14.39	−6.3	+.1	35.8	−.8	+16.2	35.9	−.8	−11.5
Millinery	49.3	−1.6	−11.8	36.3	+4.0	−17.7	17.24	+5.6	−6.8						
Shirts and collars	105.6	−3.8	+16.7	103.7	−6.8	+30.1	13.08	−3.2	+11.3	34.3	−4.5	+19.3	38.7	+1.6	−5.3
Leather and its manufactures	**86.3**	**+4.9**	**+1.8**	**75.4**	**+13.2**	**+9.1**	**18.74**	**+8.0**	**+7.2**	**37.3**	**+9.1**	**+8.1**	**52.0**	**−.8**	**+1.4**
Boots and shoes	82.8	+6.4	−.1	66.7	+18.9	+4.7	17.64	+11.7	+4.6	36.6	+12.3	+8.3	50.7	−1.0	+.5
Leather	100.4	+.1	+8.3	103.7	+2.3	+19.9	22.21	+2.2	+10.5	39.6	+1.8	+7.6	56.1	+.4	+2.3
Food and kindred products	**96.8**	**−3.7**	**−6.9**	**90.5**	**−1.5**	**−2.7**	**21.62**	**+2.3**	**+4.6**	**40.8**	**+2.3**	**+4.7**	**53.4**	**+.9**	**.2**
Baking	112.4	−1.0	−2.6	99.4	−.3	+.7	22.27	+.7	+3.3	41.1	+.7	+5.7	54.2	+.2	−2.1
Beverages	150.1	−1.9	+.9	147.4	−2.5	+9.2	29.40	−.6	+8.2	38.0	−.8	+8.4	78.2	+.3	+.8
Butter	68.5	−2.4	−5.3	55.0	+1.1	+3.8	21.38	+3.6	+9.5						
Canning and preserving	66.8	−18.9	−5.2	77.6	−13.6	+5.0	14.19	+6.6	+10.6	35.6	+5.3	+10.3	39.6	+2.3	+1.6
Confectionery	86.6	+1.6	−5.1	81.3	+10.2	−1.8	17.05	+8.5	+3.6	41.6	+10.1	+8.1	41.6	−1.2	−3.8
Flour	73.2	−3.4	−5.2	64.5	−4.7	+1.4	22.43	−1.3	+7.0	40.3	−2.2	+6.2	55.7	+.5	+1.6
Ice cream	59.8	−2.8	−2.0	51.1	−.3	+4.1	26.69	+2.5	+6.0	46.5	+2.0	+6.3	56.7	+.5	−.4
Slaughtering and meat packing	84.3	+1.8	−20.1	79.7	+2.6	−19.0	23.53	+.9	+1.2	42.1	+1.7	0	55.8	−1.1	+.8
Sugar, beet	145.2	−39.2	+28.5	122.0	−39.8	+78.6	20.09	−1.1	+39.0	44.6	−8.2	+49.1	46.5	+9.9	−3.6
Sugar refining, cane	77.6	+1.1	−11.5	70.7	+13.4	−2.5	23.81	+12.2	+10.2	40.0	+12.4	+1.2	59.1	+.3	+11.2

[1] Less than 1/10 of 1 percent.

[2] Man-hour data revised as follows: Average hours, August 1934—28.7, percentage change from July 1934, +7.5, percentage change from August 1933, −14.8; average hourly earnings, August 1934—61.2, percentage change from July 1934, +2.0, percentage change from August 1933, +37.6.

Table 1.—Employment, Pay Rolls, and Earnings in Manufacturing Industries, December 1935—Continued

Industry	Employment			Pay roll			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	Index December 1935 (3-year average 1923-25 =100)	Percentage change from—		Index December 1935 (3-year average 1923-25 =100)	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—	
		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934
Nondurable goods—Continued													*Cents*		
Tobacco manufactures	**58.2**	**−2.5**	**−6.0**	**49.6**	**+1.4**	**−0.6**	**$15.12**	**+4.0**	**+5.7**	**36.9**	**+3.4**	**+2.2**	**41.3**	**+1.0**	**+3.0**
Chewing and smoking tobacco and snuff	66.8	+.8	−6.6	67.1	+5.4	−.4	15.14	+4.6	+6.4	35.9	+5.3	+4.8	42.3	−.7	+1.7
Cigars and cigarettes	57.1	−2.8	−5.8	47.4	+.8	−.6	15.12	+3.7	+5.2	37.1	+3.3	+1.6	41.2	+1.5	+3.9
Paper and printing	**99.7**	**+1.0**	**+2.3**	**91.8**	**+4.3**	**+6.4**	**25.91**	**+3.3**	**+4.1**	**39.5**	**+2.3**	**+4.9**	**69.5**	**+1.2**	**+1.2**
Boxes, paper	90.4	−2.7	+2.1	87.6	−1.7	+5.9	19.81	+1.0	+3.5	41.3	+1.2	+7.2	48.1	0	−2.6
Paper and pulp	110.0	+.9	+2.4	94.4	+3.0	+13.1	21.80	+2.1	+10.0	40.9	+1.5	+9.6	53.4	+.6	+1.0
Printing and publishing:															
Book and job	91.2	+2.3	+2.1	84.7	+8.0	+5.7	28.91	+5.5	+3.3	39.0	+4.3	+4.2	74.6	+.9	+.4
Newspapers and periodicals	102.4	+1.2	+2.0	96.8	+4.0	+2.8	34.26	+2.7	+.1	37.6	+1.9	−.5	91.3	+1.3	+3.1
Chemicals and allied products, and petroleum refining	**111.1**	**−1.2**	**+2.1**	**100.8**	**+1.7**	**+9.9**	**23.89**	**+2.8**	**+7.6**	**38.9**	**+1.8**	**+6.5**	**61.4**	**+.8**	**+2.7**
Other than petroleum refining	111.4	−1.3	+2.9	99.8	+.6	+11.0	21.58	+1.9	+8.0	39.7	+.5	+5.8	54.7	+1.1	+2.9
Chemicals	108.8	−.6	+4.7	102.1	+.2	+13.4	25.79	+.8	+8.1	40.2	−.2	+7.3	64.2	+1.1	+1.1
Cottonseed—oil, cake, and meal	90.5	−7.8	−1.0	98.0	−5.9	+12.8	10.28	+2.1	+13.8	48.8	+1.7	+13.6	21.3	0	+.5
Druggists' preparations	98.8	−1.5	−3.9	97.2	+2.6	+2.5	21.23	+4.2	+6.2	39.1	+4.5	+1.4	55.0	+.2	+4.7
Explosives	86.7	−3.6	−4.3	76.2	−4.9	+7.8	24.59	−1.4	+12.8	36.5	−2.1	+6.3	67.5	+.9	+4.6
Fertilizers	84.5	+.7	−15.1	75.2	+3.7	−.4	13.09	+3.0	+17.3	36.4	+3.1	+15.9	36.0	−.3	+.3
Paints and varnishes	107.9	−1.2	+8.4	93.7	−.3	+20.0	24.13	+1.0	+10.6	40.6	+.5	+7.1	59.5	+.5	+4.0
Rayon and allied products	357.9	+.5	+8.6	268.0	+1.8	+11.6	19.84	+1.3	+3.0	38.3	+.3	+.2	51.9	+1.2	+2.3
Soap	97.3	−6.2	−2.3	94.6	−3.8	+4.3	23.65	+2.6	+6.9	38.8	+1.8	+1.7	61.6	+1.0	+4.6
Petroleum refining	109.6	−.7	−1.1	104.0	+5.2	+6.3	29.25	+6.0	+7.4	36.5	+5.8	+7.1	80.8	+.5	+2.5
Rubber products	**83.0**	**+.4**	**+3.5**	**74.5**	**+6.0**	**+12.9**	**24.31**	**+5.6**	**+9.1**	**37.5**	**+4.7**	**+6.5**	**66.8**	**+.9**	**+2.5**
Rubber boots and shoes	60.1	+2.7	+1.3	56.6	+12.9	+8.6	20 96	+9.9	+7.5	40.1	+9.9	+8.7	52.2	−.2	−.9
Rubber goods, other than boots, shoes, tires, and inner tubes	129.2	−1.1	+12.3	117.2	+3.1	+26.7	20.84	+4.3	+13.1	39.4	+2.6	+11.0	53.1	+1.9	+1.6
Rubber tires and inner tubes	70.5	+.9	−1.9	63.8	+6.5	+6.3	28.72	+5.6	+8.5	35.3	+5.4	+3.8	82.1	+.4	+5.6

Indexes and Estimates of Factory Employment and Pay Rolls, January 1934 to December 1935

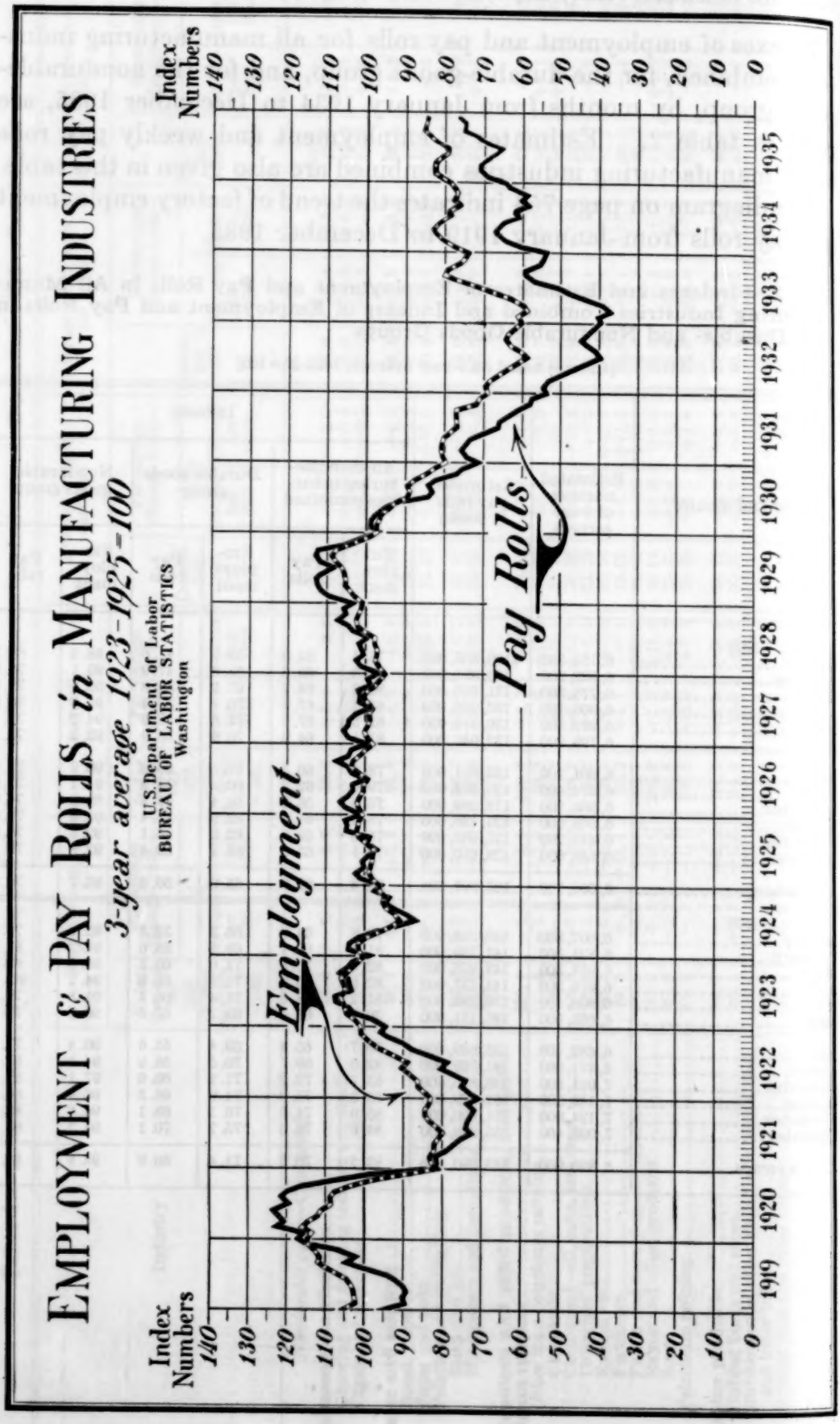
Indexes of employment and pay rolls for all manufacturing industries combined, for the durable-goods group, and for the nondurable-goods group, by months from January 1934 to December 1935, are given in table 2. Estimates of employment and weekly pay rolls for all manufacturing industries combined are also given in this table.

The diagram on page 754 indicates the trend of factory employment and pay rolls from January 1919 to December 1935.

Table 2.—Indexes and Estimates of Employment and Pay Rolls in All Manufacturing Industries Combined and Indexes of Employment and Pay Rolls in the Durable- and Nondurable-Goods Groups

[Indexes based on 3-year average, 1923–25=100]

Year and month	Estimated number of wage earners	Estimated pay rolls (1 week)	Indexes					
			All manufacturing industries combined		Durable-goods group		Nondurable-goods group	
			Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1934								
January	6,154,300	$109,806,000	73.4	54.0	59.9	41.6	88.0	69.7
February	6,522,500	123,395,000	77.8	60.6	63.6	47.9	93.1	76.9
March	6,778,300	131,650,000	80.9	64.7	67.2	52.8	95.5	79.9
April	6,906,100	136,962,000	82.4	67.3	70.1	57.4	95.6	80.0
May	6,912,600	136,575,000	82.5	67.1	71.6	58.6	94.2	78.1
June	6,799,900	132,040,000	81.1	64.9	70.9	56.9	92.2	75.1
July	6,601,700	123,011,000	78.8	60.5	67.5	49.9	90.9	73.9
August	6,674,400	126,603,000	79.6	62.2	66.2	49.9	94.1	77.9
September	6,360,200	118,089,000	75.9	58.0	64.4	45.5	88.3	74.0
October	6,569,500	124,138,000	78.4	61.0	62.9	46.4	95.0	79.6
November	6,443,200	121,085,000	76.9	59.5	62.3	46.1	92.5	76.6
December	6,545,600	128,610,000	78.1	63.2	64.4	50.4	92.8	79.5
Average	6,605,700	125,997,000	78.8	61.9	65.9	50.3	92.7	76.8
1935								
January	6,607,800	130,758,000	78.8	64.3	66.2	52.5	92.4	79.3
February	6,821,300	141,769,000	81.4	69.1	69.4	58.6	94.2	82.6
March	6,918,300	143,976,000	82.5	70.8	71.0	60.5	95.0	83.9
April	6,919,200	144,137,000	82.6	70.8	71.8	61.8	94.2	82.4
May	6,808,500	139,388,000	81.2	68.5	71.4	60.1	91.8	79.2
June	6,683,000	135,121,000	79.7	66.4	69.7	57.6	90.6	77.6
July	6,682,400	133,019,000	79.7	65.4	69.4	55.6	90.8	77.9
August	6,871,600	141,769,000	82.0	69.7	70.5	58.9	94.3	83.4
September	7,014,500	146,876,000	83.7	72.2	71.2	60.6	97.1	87.1
October	7,146,300	152,629,000	85.3	75.0	74.9	66.3	96.4	86.2
November	7,124,000	151,626,000	85.0	74.5	76.1	68.1	94.6	82.7
December	7,093,400	155,909,000	84.6	76.6	75.7	70.1	94.2	85.1
Average	6,890,900	142,990,000	82.2	70.3	71.4	60.9	93.8	82.3


EMPLOYMENT & PAY ROLLS in MANUFACTURING INDUSTRIES
3-year average 1923-1925=100
U.S. Department of Labor
BUREAU OF LABOR STATISTICS
Washington
Index Numbers
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Employment
Pay Rolls
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935

General indexes of factory employment and pay rolls by yearly averages, 1923 to 1935, inclusive, and by months, January to December 1935, are presented in table 3. Indexes for the same periods, where available, are also presented for each of the 90 manufacturing industries surveyed and for the 14 major groups and 2 subgroups into which they are classified.

The indexes over the period 1923–31 have been adjusted to conform with the annual averages shown in published reports of the Census of Manufactures. Indexes for subsequent months are subject to revision, as adjustments will be made to bring them into conformity with census averages for the year 1933 and later years as information becomes available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries

[3-year average, 1923–25=100]

Month and year	General index		Iron and steel and their products, not including machinery							
			Group index		Blast furnaces, steel works, and rolling mills		Bolts, nuts, washers, and rivets		Cast-iron pipe	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	104.1	103.3	103.9	103.2	104.5	104.5	112.5	111.5	96.0	94.6
1924 average	96.5	96.1	97.0	96.7	97.1	96.5	89.5	89.5	101.6	101.7
1925 average	99.4	100.6	99.1	100.1	98.4	99.0	98.0	99.0	102.4	103.7
1926 average	101.2	103.8	102.5	105.0	101.0	103.0	(1)	(1)	110.1	110.5
1927 average	98.9	101.8	97.2	98.6	95.7	96.7	96.0	95.6	101.8	98.2
1928 average	98.9	102.4	96.6	100.4	96.2	100.6	(1)	(1)	92.4	85.3
1929 average	104.8	109.1	102.6	107.8	103.2	109.6	114.0	122.0	87.8	85.2
1930 average	91.5	88.7	89.2	85.7	90.3	87.7	(1)	(1)	80.4	75.3
1931 average	77.4	67.5	69.7	55.0	68.4	53.6	74.2	56.2	71.5	55.1
1932 average	64.1	46.1	53.3	29.1	51.5	24.8	60.8	33.8	45.5	24.2
1933 average	69.0	48.5	58.6	36.2	58.5	35.4	71.0	42.1	39.2	19.7
1934 average	78.8	61.9	69.0	49.0	69.7	49.2	78.1	54.3	51.1	27.8
1935 average	82.2	70.3	73.0	59.8	73.7	62.0	79.6	64.9	50.3	28.4
1935										
January	78.8	64.3	67.8	51.9	69.4	53.9	80.8	62.3	49.9	26.8
February	81.4	69.1	70.7	59.0	72.9	63.8	78.0	63.8	48.6	25.6
March	82.5	70.8	71.8	59.3	74.0	63.3	78.3	66.1	48.6	25.1
April	82.6	70.8	72.7	59.4	73.7	62.3	80.1	67.6	47.3	26.3
May	81.2	68.5	72.4	58.3	73.6	61.1	80.1	65.1	49.1	27.4
June	79.7	66.4	71.8	55.7	72.4	56.8	77.3	57.4	50.9	29.0
July	79.7	65.4	71.3	52.6	71.7	52.4	75.5	54.2	51.6	28.3
August	82.0	69.7	73.2	59.4	73.7	61.6	77.1	61.3	51.2	29.1
September	83.7	72.2	74.7	62.7	74.4	64.2	78.8	63.7	51.9	29.9
October	85.3	75.0	76.4	65.5	75.6	66.1	81.7	70.8	50.7	28.9
November	85.0	74.5	76.8	65.1	76.2	66.4	83.2	69.6	51.2	30.4
December	84.6	76.6	76.6	68.8	77.0	72.0	83.7	76.3	52.8	34.1

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Iron and steel and their products, not including machinery—Continued									
	Cutlery (not including silver and plated cutlery) and edge tools		Forgings—iron and steel		Hardware		Plumbers' supplies		Steam and hot-water heating apparatus and steam fittings	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	99.6	97.9	116.5	113.9	101.6	100.1	89.9	89.5	102.2	101.7
1924 average	102.4	101.8	97.4	97.4	96.6	96.3	100.1	100.0	97.7	98.0
1925 average	98.0	100.3	86.1	88.7	101.8	103.6	110.0	110.5	100.1	100.3
1926 average	(1)	(1)	(1)	(1)	100.8	106.3	(1)	(1)	102.6	103.5
1927 average	94.6	93.7	65.5	66.7	93.0	96.1	96.7	94.6	99.3	101.6
1928 average	(1)	(1)	(1)	(1)	92.8	96.0	(1)	(1)	92.4	94.4
1929 average	89.5	87.5	87.8	97.8	101.7	106.9	92.5	87.2	91.6	92.4
1930 average	(1)	(1)	(1)	(1)	88.6	81.6	(1)	(1)	78.3	69.0
1931 average	74.2	60.4	41.9	32.5	70.3	58.9	65.1	48.0	67.1	46.3
1932 average	67.6	46.8	35.8	19.9	55.1	35.5	51.1	27.6	46.5	24.7
1933 average	65.1	42.8	40.8	25.0	55.8	36.1	58.2	31.1	49.5	26.4
1934 average	77.6	55.4	54.6	39.4	62.7	47.0	58.4	32.6	47.6	29.9
1935 average	77.9	60.8	61.0	47.6	53.6	46.8	84.3	52.8	52.6	36.2
1935										
January	75.8	55.5	57.4	45.3	51.6	41.7	67.0	40.4	47.9	31.0
February	78.4	60.0	61.1	51.0	56.2	49.6	70.2	42.9	49.6	33.1
March	80.1	61.2	61.7	51.6	56.5	47.9	72.4	44.8	50.3	33.5
April	80.3	60.1	62.8	52.2	54.4	46.3	73.9	46.1	50.2	33.8
May	78.3	59.6	60.0	47.5	53.2	42.3	78.3	49.0	51.4	34.5
June	77.4	59.3	57.6	41.5	51.4	42.9	82.3	50.3	51.5	34.6
July	71.2	54.1	56.9	38.5	49.5	40.3	90.3	53.5	49.4	32.3
August	75.6	57.1	57.9	42.3	48.5	39.4	93.4	58.7	53.0	36.4
September	76.6	59.8	61.2	46.1	51.8	46.0	96.0	62.0	54.7	39.2
October	79.3	64.3	63.2	48.6	55.6	52.0	98.0	65.1	57.8	43.4
November	80.9	67.9	65.2	51.5	56.8	55.7	95.6	60.0	58.7	41.4
December	80.9	71.2	67.1	55.5	57.6	57.4	94.0	61.2	57.0	40.7

Month and year	Iron and steel and their products, not including machinery—Continued									
	Stoves		Structural and ornamental metal work		Tin cans and other tinware		Tools, not including edge tools, machine tools, files, and saws		Wirework	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	106.0	103.5	104.4	104.0	101.0	97.7	105.7	103.1	93.1	89.6
1924 average	95.0	96.0	97.7	96.6	100.0	100.0	102.2	101.8	100.0	100.0
1925 average	99.0	100.5	97.9	99.4	99.0	102.3	92.1	95.1	106.9	110.4
1926 average	104.2	105.8	107.5	109.9	(1)	(1)	(1)	(1)	(1)	(1)
1927 average	96.2	97.5	106.1	108.8	98.4	104.2	91.7	95.6	120.4	122.5
1928 average	94.0	93.5	106.5	111.0	(1)	(1)	(1)	(1)	(1)	(1)
1929 average	99.3	98.8	111.2	112.8	104.3	113.6	107.6	117.8	124.2	129.3
1930 average	83.1	74.3	98.9	94.2	(1)	(1)	(1)	(1)	(1)	(1)
1931 average	69.4	53.4	76.0	61.5	83.7	83.3	60.4	51.1	95.6	80.6
1932 average	57.3	35.0	50.8	31.1	73.8	67.3	46.5	32.2	90.3	61.9
1933 average	68.7	43.9	46.1	26.3	78.7	70.6	48.9	34.7	103.3	75.7
1934 average	87.2	60.1	56.8	38.9	90.7	84.4	59.8	49.9	124.4	101.0
1935 average	98.6	76.1	56.6	42.1	94.1	91.5	65.2	61.8	126.2	113.7
1935										
January	81.0	55.4	55.9	39.5	85.0	80.7	60.9	54.1	120.7	102.7
February	89.0	63.3	53.8	37.6	85.4	77.3	63.3	59.2	122.5	114.2
March	91.8	68.2	55.0	38.7	86.4	83.3	64.3	60.5	124.5	115.1
April	97.4	73.7	55.3	39.8	88.3	85.4	65.4	60.8	128.9	121.5
May	99.1	74.2	56.0	40.9	90.4	87.0	64.3	60.8	127.4	106.9
June	98.5	73.4	56.0	40.7	96.0	93.8	63.9	59.4	122.3	106.7
July	98.2	71.8	56.9	42.2	100.0	97.7	62.3	55.1	116.5	95.0
August	102.0	80.4	57.9	43.9	104.0	103.6	60.0	55.2	118.7	96.3
September	107.3	89.6	58.6	45.6	105.4	105.7	65.0	61.0	117.6	101.2
October	110.1	96.7	59.0	46.0	100.5	100.2	69.0	68.1	132.8	124.0
November	108.5	86.0	58.6	44.7	95.3	91.5	71.3	71.1	138.4	135.5
December	99.8	80.7	56.6	45.0	92.9	91.5	73.2	76.0	144.4	145.7

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Machinery, not including transportation equipment									
	Group index		Agricultural implements		Cash registers, adding machines, and calculating machines		Electrical machinery, apparatus, and supplies		Engines, turbines, tractors, and water wheels	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	105.8	104.0	110.0	109.9	107.4	105.1	103.0	100.1	99.1	99.5
1924 average	95.1	95.3	88.1	88.7	97.2	97.3	97.9	99.2	96.0	96.7
1925 average	99.1	100.7	101.9	101.4	95.4	97.6	99.1	100.7	104.9	103.8
1926 average	107.8	111.2	115.3	119.1	(1)	(1)	(1)	(1)	115.4	119.2
1927 average	102.3	106.0	118.5	125.9	103.1	100.4	(1)	(1)	111.3	119.3
1928 average	105.1	111.3	137.9	152.4	(1)	(1)	(1)	(1)	113.2	125.5
1929 average	125.9	134.2	147.9	160.0	120.8	137.3	127.3	134.4	125.3	138.9
1930 average	104.6	102.2	110.7	106.9	(1)	(1)	107.1	109.3	106.1	107.2
1931 average	78.3	63.9	62.3	51.9	87.3	69.1	80.9	68.7	68.1	54.0
1932 average	56.3	36.1	39.2	32.4	75.4	50.6	56.8	37.1	42.4	24.0
1933 average	58.9	37.9	44.5	37.7	79.5	56.4	51.3	33.6	44.8	25.7
1934 average	77.7	57.2	75.1	77.7	102.0	79.4	63.9	47.7	69.7	45.7
1935 average	87.0	70.5	109.2	125.4	104.6	86.0	71.0	58.9	97.5	70.7
1935										
January	79.6	60.8	89.6	97.5	101.7	79.2	65.9	52.4	79.5	54.5
February	82.0	64.1	92.7	100.9	102.1	82.0	67.5	55.0	85.5	59.9
March	84.1	66.9	101.3	113.7	103.0	83.6	69.2	57.2	90.8	64.2
April	85.1	67.6	97.0	108.8	104.6	84.9	70.9	58.4	97.5	69.6
May	84.5	67.8	97.0	110.5	102.7	83.2	70.7	58.2	101.4	74.2
June	84.2	66.9	110.6	127.5	102.4	84.3	69.6	56.1	102.8	74.6
July	85.6	67.5	116.7	135.2	102.7	85.6	69.6	54.7	101.1	72.6
August	87.3	71.2	117.8	137.5	102.0	85.8	70.4	57.8	101.1	73.9
September	91.1	75.2	118.5	136.8	105.0	88.2	73.3	62.1	101.2	74.4
October	93.1	78.4	116.6	136.1	108.0	90.7	75.3	65.2	101.3	75.0
November	93.8	78.9	123.8	145.0	109.5	88.5	75.4	64.6	103.0	76.1
December	93.1	80.7	128.9	155.2	111.4	96.1	74.0	65.1	105.3	79.0

Month and year	Machinery, not including transportation equipment—Continued									
	Foundry and machine-shop products		Machine tools		Radios and phonographs		Textile machinery and parts		Typewriters and parts	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	108.4	106.7	108.1	105.3	89.5	88.1	116.4	117.5	100.0	98.4
1924 average	93.9	93.6	92.0	90.8	105.9	107.5	92.7	86.8	100.0	100.0
1925 average	97.7	99.7	99.9	103.9	104.6	104.4	90.9	95.7	100.0	101.6
1926 average	103.3	107.4	119.3	125.3	(1)	(1)	90.1	95.7	(1)	(1)
1927 average	97.7	99.9	114.3	116.3	(1)	(1)	85.3	93.2	111.5	113.0
1928 average	98.8	102.6	127.9	139.8	(1)	(1)	78.5	84.2	(1)	(1)
1929 average	111.3	117.9	167.2	187.6	204.5	202.9	88.1	96.7	121.1	130.1
1930 average	94.2	89.0	126.0	121.9	141.0	139.8	71.2	66.0	(1)	(1)
1931 average	69.7	55.4	74.7	61.5	124.4	96.5	61.3	54.3	77.8	60.0
1932 average	50.4	31.1	40.5	27.5	100.0	62.7	48.7	35.4	58.7	35.2
1933 average	52.6	32.8	41.7	28.7	151.4	85.4	61.1	47.0	62.7	42.4
1934 average	68.0	49.6	69.0	53.4	203.5	116.5	69.1	54.4	94.4	81.1
1935 average	74.4	59.5	88.1	76.2	209.6	129.8	64.5	52.9	99.9	85.3
1935										
January	69.2	51.5	73.1	58.2	190.4	111.8	64.1	52.0	101.5	85.3
February	72.0	55.7	76.9	63.2	186.0	103.2	64.8	52.6	98.6	79.5
March	73.5	57.5	79.6	66.5	189.0	110.6	64.8	52.3	95.9	79.7
April	74.3	58.0	81.8	67.8	182.4	107.0	65.8	51.6	93.6	78.0
May	73.8	57.9	83.0	70.1	168.0	101.5	63.6	51.6	95.8	80.2
June	72.8	56.2	85.1	71.8	165.5	100.9	64.0	52.3	96.3	77.7
July	73.4	56.7	89.0	75.8	185.0	112.9	63.4	51.2	97.1	79.4
August	74.0	60.0	91.9	80.5	213.8	133.9	62.6	50.5	97.6	80.0
September	76.0	62.2	96.4	85.2	254.9	166.3	62.9	50.4	101.7	92.3
October	76.8	64.6	98.5	89.5	279.1	185.8	64.3	54.4	105.2	96.6
November	77.6	65.3	100.1	90.2	271.6	179.8	66.0	54.4	107.5	99.3
December	79.0	68.5	101.5	96.0	230.0	143.7	68.0	61.1	107.5	96.0

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Transportation equipment											
	Group index		Aircraft		Automobiles		Cars, electric and steam railroad		Locomotives		Shipbuilding	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	107.6	107.7	103.6	103.4	100.6	100.6	126.9	128.7	157.7	168.1	114.5	112.8
1924 average	93.1	90.8	100.0	100.0	93.6	90.6	93.8	94.3	76.4	72.9	93.2	94.9
1925 average	99.3	101.5	96.4	96.6	105.8	108.8	79.3	77.0	65.9	59.0	92.3	92.3
1926 average	99.1	99.5	(1)	(1)	104.8	104.8	75.0	70.9	86.2	80.6	97.4	100.9
1927 average	87.9	89.8	157.9	156.8	91.9	93.3	59.9	60.4	66.7	57.2	101.3	108.3
1928 average	96.2	101.6	(1)	(1)	108.1	113.9	48.4	48.2	45.4	39.6	79.5	85.0
1929 average	103.5	105.4	525.2	501.5	111.3	111.6	63.1	63.1	56.8	58.3	101.3	109.7
1930 average	80.2	70.2	(1)	(1)	80.3	65.7	54.7	53.2	52.3	51.5	107.3	113.5
1931 average	66.3	52.3	353.1	354.8	71.0	53.4	29.6	25.4	28.0	18.1	83.0	76.8
1932 average	56.0	40.7	253.7	251.0	60.8	42.3	26.3	23.5	19.4	8.9	66.0	52.5
1933 average	54.2	39.5	298.5	269.5	59.8	42.8	25.4	20.5	15.6	5.8	55.4	38.9
1934 average	82.9	68.6	332.5	288.2	93.2	76.1	43.4	40.8	31.1	13.7	70.2	54.9
1935 average	95.1	88.0	398.3	326.4	108.9	100.2	44.3	45.1	26.2	11.6	74.8	64.1
1935												
January	92.4	79.4	308.5	251.3	108.1	92.2	34.2	31.7	30.3	13.2	68.3	56.2
February	100.9	94.7	323.9	265.4	117.5	110.3	43.6	43.4	30.9	13.6	72.8	59.7
March	103.6	98.2	329.1	277.6	119.5	112.7	52.2	54.5	32.5	14.6	74.9	63.8
April	104.8	102.7	356.1	291.5	119.9	117.1	59.1	65.1	32.3	15.0	74.6	62.0
May	102.7	94.2	392.0	317.7	116.4	105.1	60.3	65.8	30.1	13.8	76.4	65.7
June	93.7	82.4	416.0	340.3	107.2	93.4	48.2	46.6	28.4	12.6	66.2	55.5
July	87.2	74.7	432.6	343.7	100.6	85.7	31.7	28.0	20.0	8.2	71.3	59.4
August	83.5	71.6	453.4	378.4	95.1	80.6	32.2	30.4	21.5	9.1	72.4	61.5
September	75.8	65.7	442.9	360.3	84.0	72.1	33.5	31.8	21.0	8.9	76.1	65.6
October	92.3	86.4	447.3	370.3	105.0	97.7	40.0	41.0	21.3	9.5	79.8	70.4
November	101.0	101.5	447.8	358.9	115.5	116.7	45.9	47.4	22.8	10.1	82.3	72.5
December	103.4	104.4	430.3	361.9	118.2	118.8	50.1	55.2	22.8	10.6	82.9	77.2

Month and year	Railroad repair shops						Nonferrous metals and their products					
	Group index		Electric railroad		Steam railroad		Group index		Aluminum manufactures		Brass, bronze, and copper products	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	108.6	109.6	104.0	101.5	108.9	110.2	105.4	103.7	106.3	100.2	103.4	101.3
1924 average	96.4	95.6	99.1	98.8	96.3	95.5	96.7	95.9	100.0	100.0	96.6	95.6
1925 average	95.0	94.8	96.9	99.7	94.8	94.3	97.9	100.4	93.7	99.8	100.0	103.1
1926 average	95.5	96.1	96.5	100.4	95.4	95.7	(1)	(1)	(1)	(1)	102.7	107.4
1927 average	89.0	92.0	94.1	99.8	88.6	91.4	96.5	100.5	96.6	105.5	101.2	104.7
1928 average	83.8	87.2	89.6	97.9	83.3	86.3	(1)	(1)	(1)	(1)	107.3	115.6
1929 average	82.6	90.4	87.8	97.2	82.2	89.8	111.4	116.4	138.4	150.0	121.5	128.3
1930 average	73.4	76.1	85.8	93.0	72.4	74.8	(1)	(1)	(1)	(1)	96.6	88.7
1931 average	64.1	61.7	79.3	80.2	62.9	60.4	74.0	63.1	90.2	81.3	74.9	60.3
1932 average	53.4	42.7	71.7	64.3	52.0	41.2	58.1	39.1	64.3	42.1	57.8	35.8
1933 average	52.0	41.7	66.3	55.1	50.9	40.8	62.2	41.4	71.8	50.9	64.1	41.3
1934 average	55.5	48.1	66.0	58.0	54.7	47.5	76.1	56.0	74.9	56.9	74.6	53.9
1935 average	53.7	50.6	65.3	59.7	52.8	50.0	84.8	67.5	78.2	68.3	81.8	64.5
1935												
January	51.6	43.8	65.3	58.0	50.6	42.9	78.3	58.7	72.3	58.1	75.4	58.3
February	52.9	48.0	65.9	59.7	51.9	47.2	81.6	63.7	76.8	66.8	80.8	63.2
March	53.6	49.6	65.8	60.7	52.7	48.9	83.0	65.0	79.0	69.6	82.0	64.0
April	52.9	50.7	65.6	60.4	52.0	50.1	83.4	64.7	78.7	69.3	81.8	64.1
May	53.6	52.5	65.7	60.2	52.7	52.0	82.9	63.7	78.3	68.0	80.8	61.5
June	53.8	51.0	65.6	59.0	52.9	50.5	81.8	62.9	76.2	64.6	78.9	60.0
July	53.5	48.2	65.2	58.8	52.6	47.5	80.2	59.9	74.6	58.3	77.4	57.5
August	52.8	49.0	65.3	59.6	51.9	48.3	82.0	64.7	75.5	65.8	78.2	61.1
September	52.6	49.1	64.6	59.1	51.7	48.5	86.9	70.9	79.1	69.6	81.8	65.8
October	55.1	53.1	64.5	60.0	54.4	52.7	91.9	78.4	82.7	76.0	86.8	72.5
November	55.7	54.5	65.1	59.3	55.0	54.2	93.1	78.5	83.0	77.0	89.0	72.9
December	55.8	57.1	64.8	61.8	55.1	56.9	92.3	79.4	82.1	76.7	88.5	73.4

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Nonferrous metals and their products—Continued											
	Clocks, watches, and time-recording devices		Jewelry		Lighting equipment		Silverware and plated ware		Smelting and refining—copper, lead, and zinc		Stamped and enameled ware	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	97.6	95.7	105.1	105.9	101.3	96.7	100.6	98.1	102.8	103.2	110.1	111.2
1924 average	100.0	100.0	99.8	91.8	100.0	100.0	100.0	100.0	100.0	100.0	95.7	92.8
1925 average	102.4	104.3	95.1	102.3	98.7	103.3	99.4	101.9	97.2	96.8	94.2	96.0
1926 average	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	96.9	98.3
1927 average	102.9	108.1	96.2	106.9	92.9	97.3	98.4	102.3	89.9	90.4	93.0	95.7
1928 average	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	104.1	108.0
1929 average	98.2	102.2	111.4	113.3	104.2	110.6	92.6	96.5	91.3	99.4	120.5	125.6
1930 average	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	106.3	104.9
1931 average	74.3	62.2	74.1	65.6	65.3	60.4	65.3	54.3	54.4	45.9	85.4	76.8
1932 average	54.5	35.4	57.6	43.5	49.5	38.8	54.3	37.2	45.3	27.3	69.8	49.0
1933 average	51.7	34.4	55.5	39.6	51.4	38.7	55.6	36.2	50.7	29.2	78.0	52.0
1934 average	70.1	55.7	67.5	52.2	64.4	51.9	68.9	50.3	68.1	42.1	96.8	71.6
1935 average	83.7	71.4	73.5	57.3	74.3	65.7	70.4	54.3	80.9	53.8	107.2	87.5
1935												
January	77.1	56.4	68.5	50.8	66.3	54.8	67.8	47.5	73.6	46.5	99.6	76.2
February	78.0	62.9	70.6	54.0	68.3	57.4	67.5	51.5	75.0	48.0	105.4	85.2
March	78.8	65.7	70.5	53.9	69.8	57.0	69.0	52.5	75.7	48.3	108.4	89.7
April	79.9	64.9	69.4	51.4	70.1	59.0	71.7	51.2	77.1	49.8	109.1	88.0
May	80.5	64.7	65.8	49.8	69.2	58.2	73.9	57.0	79.5	51.1	106.9	83.3
June	80.7	67.2	65.5	49.5	68.9	59.8	73.4	57.1	81.8	53.2	102.5	77.6
July	80.0	62.5	66.9	47.8	69.0	58.9	65.3	48.1	80.2	53.0	100.4	73.9
August	80.7	68.8	72.5	54.8	71.7	64.2	69.8	52.0	80.8	53.2	101.9	82.3
September	87.3	77.0	83.0	68.2	78.1	69.5	69.8	56.0	83.7	56.1	106.2	89.8
October	92.1	87.0	89.0	76.8	86.9	81.6	72.4	59.9	85.7	58.6	112.7	99.9
November	94.4	90.7	84.0	65.4	86.9	83.5	73.0	60.5	88.0	61.9	116.2	101.0
December	94.5	88.8	76.0	65.1	86.9	84.7	71.3	58.7	89.7	65.9	117.0	102.8

Month and year	Lumber and allied products									
	Group index		Furniture		Lumber, millwork		Lumber, sawmills		Turpentine and rosin	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	101.5	100.0	98.1	96.9	96.7	95.6	103.6	102.5	107.7	100.8
1924 average	98.1	98.4	96.2	96.4	98.8	99.3	98.8	99.2	100.0	100.0
1925 average	100.4	101.6	105.7	106.7	104.5	105.1	97.6	98.3	92.3	99.2
1926 average	100.4	102.5	110.3	113.4	102.7	103.3	95.5	96.6	(1)	(1)
1927 average	94.1	96.7	108.8	111.8	90.7	90.5	86.6	89.0	119.0	110.7
1928 average	92.4	94.2	106.7	107.5	86.7	86.1	84.4	87.2	(1)	(1)
1929 average	95.4	97.4	111.9	114.0	84.6	83.5	87.7	90.7	126.0	98.2
1930 average	76.1	72.6	89.0	80.7	64.4	61.1	67.6	67.6	(1)	(1)
1931 average	56.3	46.6	73.7	59.2	51.1	42.0	41.1	33.6	88.6	47.5
1932 average	41.1	25.1	57.8	34.8	35.6	21.7	26.1	14.2	71.9	32.7
1933 average	44.2	26.4	61.7	36.3	34.5	19.5	28.7	16.0	83.6	36.3
1934 average	48.7	32.7	63.0	41.9	36.8	23.3	33.4	21.4	97.2	50.1
1935 average	52.6	39.9	70.9	52.5	43.5	33.0	34.5	24.2	99.0	58.8
1935										
January	47.1	31.7	64.1	43.5	35.9	23.0	30.9	19.1	95.6	52.7
February	49.4	34.8	66.9	47.1	37.9	25.3	32.7	21.4	96.3	54.2
March	50.6	36.3	69.1	49.7	38.3	25.8	33.5	22.4	99.7	52.3
April	51.7	37.5	68.6	49.2	39.7	27.7	34.8	23.7	99.2	57.9
May	50.9	34.8	67.0	47.1	40.7	29.1	34.0	20.1	99.0	57.3
June	48.9	36.3	67.1	48.5	41.9	31.5	30.9	20.9	98.9	59.9
July	51.9	38.3	69.1	48.4	44.8	34.2	33.9	23.3	98.9	57.5
August	55.3	44.4	73.4	56.0	47.5	37.7	36.6	27.9	99.1	59.3
September	57.0	47.3	76.3	60.2	50.1	40.8	37.4	29.4	100.5	59.3
October	57.5	48.6	77.9	63.0	49.5	41.9	37.6	29.5	100.3	64.6
November	56.0	45.0	77.0	59.3	48.7	39.6	36.0	26.5	100.7	65.8
December	54.5	44.2	74.8	58.4	46.9	39.0	35.1	25.9	99.7	64.4

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Stone, clay, and glass products											
	Group index		Brick, tile, and terra cotta		Cement		Glass		Marble, granite, slate, and other products		Pottery	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	100.4	98.3	100.6	98.1	95.0	94.6	105.1	103.4	104.5	101.7	98.5	97.8
1924 average	98.9	100.5	98.7	101.1	101.0	102.9	95.5	96.9	100.0	100.0	103.8	104.3
1925 average	100.7	101.2	100.7	100.8	104.0	102.5	99.4	99.7	95.5	98.3	97.7	97.9
1926 average	103.8	104.2	102.9	101.8	102.1	100.9	103.8	103.9	(1)	(1)	99.7	99.3
1927 average	99.9	100.5	99.0	96.7	98.3	101.1	94.3	93.6	105.6	113.0	98.0	94.5
1928 average	95.7	96.2	92.3	87.5	92.6	96.9	92.6	94.5	(1)	(1)	98.8	93.9
1929 average	93.8	93.7	91.5	84.7	90.3	92.9	96.7	100.9	98.7	104.0	94.7	91.4
1930 average	80.2	76.9	72.2	62.2	84.6	83.4	83.8	82.9	(1)	(1)	82.9	74.1
1931 average	63.7	53.9	50.2	35.2	65.8	56.9	71.5	66.5	72.2	68.8	72.3	56.4
1932 average	44.6	29.1	29.6	14.0	44.9	27.7	58.9	45.9	43.2	31.8	57.0	35.1
1933 average	45.0	27.6	27.0	12.0	41.1	22.2	69.8	52.9	33.7	20.7	60.2	35.8
1934 average	52.8	35.5	29.7	16.0	49.3	30.6	89.8	71.8	30.7	19.4	69.0	44.7
1935 average	53.9	39.9	31.0	19.4	49.5	32.1	94.5	82.9	26.5	17.9	69.4	50.1
1935												
January	47.2	31.6	24.8	13.0	37.2	21.2	86.5	69.9	20.0	11.0	69.9	46.9
February	49.6	34.8	25.7	15.0	37.8	22.1	91.7	75.6	22.6	14.4	71.4	50.3
March	51.5	37.4	27.6	16.3	41.6	25.0	93.7	81.3	23.4	15.2	72.9	52.4
April	53.2	39.3	27.6	16.3	50.0	31.9	94.2	82.7	26.5	18.2	73.4	53.4
May	55.0	40.3	29.6	17.7	57.0	36.8	94.8	81.6	28.5	21.2	71.5	50.3
June	55.7	40.5	32.1	19.3	60.1	40.1	95.2	82.0	27.5	19.1	66.8	46.1
July	54.7	38.9	32.9	20.2	57.5	37.9	92.7	77.0	30.0	20.4	62.4	41.5
August	55.9	40.9	33.8	21.2	53.8	35.8	95.7	82.3	29.6	20.5	67.0	46.6
September	55.8	42.2	34.0	22.5	51.9	35.2	95.8	85.6	27.9	19.0	69.5	50.3
October	56.7	44.5	35.3	24.0	52.9	35.1	97.5	90.9	27.8	19.8	68.6	53.3
November	56.4	43.9	34.6	23.4	49.6	33.3	98.4	91.2	27.4	17.7	70.0	54.6
December	55.2	44.6	33.9	23.3	45.0	31.1	97.8	94.2	27.1	18.5	69.1	55.9

Month and year	Textiles and their products									
	Group index		Fabric (subgroup)		Carpets and rugs		Cotton goods		Cotton small wares	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	105.2	105.8	105.4	106.0	103.8	109.2	106.7	110.1	104.4	105.5
1924 average	94.9	93.8	94.2	93.4	96.2	93.3	92.5	91.6	92.6	91.8
1925 average	99.9	100.4	100.4	100.6	100.0	97.5	100.8	98.3	103.0	102.7
1926 average	99.9	100.2	99.2	99.4	97.8	93.8	101.9	98.5	(1)	(1)
1927 average	104.0	106.8	101.3	103.8	96.9	94.5	105.8	105.7	95.3	101.3
1928 average	101.3	101.7	96.2	95.8	92.8	85.7	95.5	88.4	(1)	(1)
1929 average	104.8	105.2	99.2	99.4	96.2	90.1	96.1	90.1	97.4	102.1
1930 average	92.9	85.6	86.0	79.4	74.2	59.7	80.7	69.4	(1)	(1)
1931 average	87.2	75.1	80.3	70.2	67.5	54.3	74.5	61.0	81.7	76.8
1932 average	76.7	53.5	71.9	50.9	52.0	32.2	67.8	44.6	68.7	52.4
1933 average	87.9	61.2	86.2	62.2	60.6	42.6	87.5	62.1	77.4	58.8
1934 average	91.2	71.2	89.5	70.9	66.7	50.1	92.9	73.0	82.1	67.2
1935 average	95.2	79.7	93.3	79.4	79.4	72.2	89.4	74.1	86.0	74.7
1935										
January	95.2	78.5	95.8	82.2	66.5	55.5	96.3	81.8	84.9	73.7
February	98.4	84.5	97.2	84.5	69.7	60.5	96.7	82.8	90.9	82.0
March	99.2	86.8	96.4	83.3	75.4	68.3	95.5	80.6	90.5	79.6
April	97.2	82.4	93.3	78.0	79.1	74.2	91.9	74.0	90.6	78.7
May	93.5	75.5	91.0	74.9	79.7	73.7	88.0	70.7	89.2	75.7
June	90.4	70.9	89.4	72.0	81.3	76.7	85.1	65.6	81.2	65.9
July	87.8	68.4	87.5	70.1	82.7	75.8	82.3	64.2	79.9	65.2
August	92.9	78.9	89.9	76.5	83.7	80.6	81.6	64.8	77.1	64.3
September	95.9	84.6	92.1	80.4	85.9	83.4	84.8	70.7	82.3	71.8
October	97.7	84.5	94.6	83.3	84.3	73.8	88.0	75.8	85.3	75.8
November	97.0	79.7	96.1	82.6	82.6	70.5	90.6	76.8	89.4	78.6
December	96.9	81.9	96.4	85.3	82.3	73.5	92.2	81.2	90.5	84.5

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Textiles and their products—Continued									
	Dyeing and finishing textiles		Hats, fur-felt		Knit goods		Silk and rayon goods		Woolen and worsted goods	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	97.4	96.1	106.4	107.4	104.8	103.7	99.7	97.4	109.3	109.1
1924 average	93.9	92.7	97.1	90.5	94.5	92.3	94.8	93.0	97.9	97.6
1925 average	108.7	111.2	96.5	102.1	100.7	104.0	105.5	109.6	92.8	93.3
1926 average	110.8	114.2	(1)	(1)	101.3	109.1	102.9	107.8	84.1	84.0
1927 average	113.5	121.5	101.2	114.1	102.6	116.0	101.5	107.6	86.7	84.7
1928 average	114.9	121.8	(1)	(1)	102.6	115.4	101.0	107.5	83.1	79.2
1929 average	121.8	124.8	105.3	112.3	112.5	129.8	103.8	105.6	82.6	80.1
1930 average	112.0	108.7	(1)	(1)	102.9	108.6	95.1	87.2	67.2	60.5
1931 average	103.3	101.2	89.6	82.5	96.0	92.2	86.9	74.8	67.1	57.3
1932 average	89.3	72.3	71.7	57.6	94.1	75.5	68.7	46.4	59.5	41.3
1933 average	94.8	73.6	77.5	65.8	102.2	81.4	75.5	51.8	78.2	54.5
1934 average	106.2	84.2	80.1	74.3	107.6	98.6	75.4	60.0	72.4	52.5
1935 average	110.4	89.9	83.1	78.4	112.4	108.2	73.7	62.5	95.4	75.4
1935										
January	117.1	102.7	79.3	69.3	109.2	106.2	80.7	68.4	91.8	73.1
February	117.8	100.6	82.1	81.2	112.5	112.1	81.3	70.0	93.9	74.9
March	116.9	100.3	84.0	83.1	114.5	114.6	76.5	65.6	92.4	72.5
April	114.6	95.7	84.9	71.2	114.3	110.3	71.0	59.6	87.0	66.5
May	110.0	86.2	80.6	68.5	112.0	102.0	65.9	54.5	91.1	71.2
June	107.3	78.9	74.7	67.6	108.1	93.7	63.1	51.5	96.7	76.9
July	101.3	73.5	81.1	82.1	103.9	85.8	68.2	55.4	94.4	74.6
August	102.9	84.3	90.5	99.9	110.4	105.5	75.5	65.1	97.3	76.9
September	104.7	86.0	88.7	91.9	114.0	114.8	78.0	67.2	95.9	75.8
October	109.0	88.4	84.8	71.1	117.4	120.8	77.6	68.2	98.5	79.0
November	111.7	88.2	82.8	69.6	117.6	120.0	72.5	60.9	103.1	79.4
December	111.0	93.5	83.6	84.9	115.2	113.0	74.0	63.9	102.4	84.3

Month and year	Textiles and their products—Continued									
	Wearing apparel (subgroup)		Clothing, men's		Clothing, women's		Corsets and allied garments		Men's furnishings	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	105.4	105.6	107.0	109.3	104.3	103.2	105.2	103.4	94.6	93.6
1924 average	96.1	94.9	97.3	96.1	96.6	94.3	100.0	100.0	100.1	96.1
1925 average	98.5	99.5	95.7	94.6	99.1	102.5	94.8	96.6	105.3	110.3
1926 average	99.8	99.6	97.4	94.8	104.2	104.7	(1)	(1)	(1)	(1)
1927 average	105.8	107.6	102.5	99.5	121.0	123.6	90.0	96.7	125.7	139.5
1928 average	108.3	107.5	101.3	95.5	133.7	132.5	(1)	(1)	(1)	(1)
1929 average	113.3	111.0	103.2	95.8	146.8	142.6	89.2	97.0	132.7	145.5
1930 average	105.0	93.6	91.4	74.7	142.2	127.9	(1)	(1)	(1)	(1)
1931 average	99.6	80.7	84.9	62.8	135.8	110.5	91.3	89.6	120.1	109.5
1932 average	84.8	55.5	74.4	42.3	110.4	73.9	88.0	74.0	99.2	67.0
1933 average	88.2	55.7	80.3	47.3	110.0	68.0	88.9	71.0	101.5	62.7
1934 average	91.1	67.7	84.0	57.9	116.1	84.9	90.1	81.4	101.6	70.6
1935 average	95.3	75.6	90.9	70.7	121.9	92.0	88.4	82.1	103.8	72.1
1935										
January	89.4	66.6	83.9	57.0	117.3	87.8	90.8	85.9	94.4	60.0
February	96.8	79.5	91.8	71.8	125.1	101.6	90.3	90.5	108.0	75.2
March	101.4	88.5	94.6	82.0	133.6	111.3	93.7	91.4	111.6	80.4
April	101.8	86.4	94.7	82.5	134.8	103.9	93.8	91.3	111.3	76.7
May	95.3	72.1	87.6	64.4	123.9	89.4	91.1	83.0	107.3	71.0
June	88.6	64.6	86.6	63.7	108.4	71.3	87.5	75.1	100.3	63.2
July	84.4	60.8	88.9	65.6	94.7	63.0	85.4	73.1	91.5	55.7
August	96.0	78.8	93.6	74.3	121.4	97.9	85.3	72.5	98.0	67.4
September	100.5	87.8	95.4	80.4	130.1	109.0	87.6	84.4	102.4	74.6
October	100.5	81.8	94.8	74.8	131.7	103.3	87.0	81.3	104.2	80.8
November	94.8	69.2	88.9	64.4	121.9	81.3	85.1	78.7	109.7	84.1
December	93.8	70.5	89.7	67.1	120.4	84.0	83.3	77.5	106.4	76.4

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Textiles and their products—Continued				Leather and its manufactures					
	Millinery		Shirts and collars		Group index		Boots and shoes		Leather	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	103.2	100.8	107.9	109.7	106.6	106.9	106.0	107.6	109.1	107.9
1924 average	94.8	94.5	93.0	91.9	96.3	95.3	96.7	95.3	95.4	95.8
1925 average	102.0	104.7	99.1	98.4	97.1	97.8	97.3	97.1	95.5	96.3
1926 average	98.0	103.6	101.7	101.9	96.6	98.9	95.6	96.1	96.7	99.5
1927 average	104.8	113.9	105.1	109.9	97.7	100.3	95.6	96.8	96.6	99.3
1928 average	105.7	112.3	106.3	107.1	95.6	95.8	92.7	91.3	94.3	95.5
1929 average	101.3	104.0	109.1	109.2	98.5	99.0	96.7	95.6	91.1	92.8
1930 average	91.3	88.6	102.7	90.3	91.2	82.3	90.2	78.3	84.6	83.0
1931 average	83.7	79.2	104.0	82.7	84.3	72.1	85.3	70.2	76.9	72.5
1932 average	76.3	65.2	90.5	61.0	79.0	58.1	81.7	58.5	69.1	56.0
1933 average	75.9	57.9	99.0	72.1	83.3	62.9	83.9	61.5	81.3	66.8
1934 average	70.4	60.6	99.8	89.7	87.8	73.9	87.0	71.7	91.1	80.2
1935 average	59.3	52.4	103.7	100.6	87.9	76.4	86.1	70.8	95.5	94.4
1935										
January	62.4	54.0	90.4	77.8	88.3	76.4	87.0	72.5	94.0	88.5
February	66.5	58.7	99.8	95.7	91.6	82.5	90.7	79.2	95.6	92.6
March	70.2	70.5	104.3	101.3	92.7	84.1	92.1	80.7	95.5	94.2
April	69.6	70.0	104.3	104.4	91.5	79.1	90.8	75.1	94.5	91.4
May	61.6	48.6	106.5	103.9	86.7	72.3	85.2	66.7	93.2	90.0
June	55.2	47.2	98.4	94.7	83.0	70.9	80.6	64.7	92.8	91.1
July	42.3	30.3	99.0	91.2	87.3	77.5	85.8	73.1	93.5	91.2
August	57.6	52.5	105.9	102.9	90.1	81.7	89.1	77.7	94.4	94.2
September	66.8	76.1	109.5	109.1	88.8	76.9	87.3	71.1	95.2	95.2
October	60.4	49.2	110.9	111.6	86.6	73.8	84.0	65.9	97.0	99.4
November	50.1	34.9	109.8	111.3	82.3	66.6	77.8	56.1	100.3	101.4
December	49.3	36.3	105.6	103.7	86.3	75.4	82.8	66.7	100.4	103.7

Month and year	Food and kindred products									
	Group index		Baking		Beverages		Butter		Canning and preserving	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	102.1	100.4	100.1	98.0	104.9	104.4	106.7	105.7	97.7	97.8
1924 average	98.4	99.4	101.1	101.7	97.0	95.8	100.0	100.0	86.9	86.9
1925 average	99.5	100.2	98.8	100.3	98.1	99.8	93.3	94.3	115.4	115.3
1926 average	99.5	101.8	101.4	104.1	(1)	(1)	(1)	(1)	(1)	(1)
1927 average	101.7	104.0	105.9	107.8	96.6	100.0	105.6	108.2	112.0	108.7
1928 average	105.8	107.6	112.2	113.3	(1)	(1)	(1)	(1)	(1)	(1)
1929 average	112.8	113.9	123.6	125.3	101.3	106.1	100.3	102.5	134.6	129.4
1930 average	109.4	108.9	121.5	123.7	(1)	(1)	(1)	(1)	138.8	126.7
1931 average	97.4	93.0	112.6	109.0	85.5	83.1	82.0	79.1	106.1	91.5
1932 average	86.4	74.2	101.2	88.6	74.0	64.3	75.3	65.7	74.8	64.9
1933 average	94.4	76.2	101.2	82.7	127.9	118.0	76.1	58.7	90.3	75.5
1934 average	106.5	92.4	113.2	95.5	163.2	156.2	80.0	60.3	101.8	99.6
1935 average	101.2	91.6	112.2	96.9	160.4	159.7	72.0	56.3	107.6	120.2
1935										
January	94.9	83.7	106.7	89.6	144.6	133.4	68.3	51.7	65.9	68.6
February	94.4	83.8	111.3	93.7	145.7	137.2	67.6	52.2	63.1	69.0
March	93.2	83.3	110.9	93.7	151.3	146.9	67.8	52.4	59.2	64.3
April	95.4	85.9	111.8	95.5	156.0	153.6	70.4	54.7	76.5	83.7
May	95.8	87.3	112.7	97.3	161.6	162.5	73.2	57.4	74.7	83.7
June	98.9	90.9	114.2	99.6	170.0	173.4	77.2	60.8	89.5	102.7
July	105.7	96.9	111.5	96.5	178.5	192.7	78.0	61.4	150.0	177.8
August	111.8	100.9	111.7	95.7	179.0	189.8	76.9	60.4	195.7	230.1
September	118.2	105.5	114.6	101.6	171.9	171.0	74.9	59.8	230.7	244.1
October	108.5	98.0	114.6	100.8	162.9	157.7	71.5	55.5	136.1	151.4
November	100.5	91.9	113.6	99.7	153.0	151.2	70.1	54.4	82.4	89.8
December	96.8	90.5	112.4	99.4	150.1	147.4	68.5	55.0	66.8	77.6

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Food and kindred products—Continued											
	Confectionery		Flour		Ice cream		Slaughtering and meat packing		Sugar, beet		Sugar refining, cane	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	101.7	100.9	104.9	101.9	99.2	98.7	104.7	102.6	92.1	91.1	103.4	102.6
1924 average	96.5	97.7	99.7	101.0	102.0	99.7	100.3	99.9	100.0	100.0	98.2	100.4
1925 average	101.8	101.4	95.4	97.1	98.8	101.6	95.0	97.5	107.9	108.9	98.4	97.0
1926 average	105.8	106.8	91.8	94.4	96.3	103.2	93.2	97.8	(1)	(1)	94.8	91.5
1927 average	101.1	104.7	89.4	91.8	94.0	100.6	94.0	98.9	90.0	87.5	94.9	90.6
1928 average	98.9	101.0	85.5	89.7	95.5	103.2	94.8	100.1	(1)	(1)	89.4	87.5
1929 average	101.7	103.7	80.6	85.7	96.0	102.7	96.7	101.5	91.2	90.3	94.3	91.4
1930 average	92.1	93.3	73.9	78.7	89.0	93.0	92.1	96.3	(1)	(1)	92.3	89.7
1931 average	82.0	77.5	68.1	66.7	76.0	76.9	84.1	82.2	75.8	68.1	80.3	79.6
1932 average	74.2	59.9	65.1	55.9	64.5	56.4	79.8	65.2	76.7	56.2	74.2	68.7
1933 average	79.7	59.5	67.7	53.9	62.9	48.6	87.6	67.7	102.6	73.7	78.6	67.0
1934 average	80.0	68.5	76.5	63.4	71.4	56.4	103.7	90.5	84.7	61.0	86.4	70.1
1935 average	79.5	70.1	75.3	65.8	71.0	57.9	82.8	76.0	90.0	77.2	81.6	71.0
1935												
January	78.6	67.4	76.2	63.8	60.8	48.6	94.3	84.0	42.7	39.3	84.4	71.1
February	80.3	70.3	76.5	66.1	61.3	49.6	87.2	76.5	35.7	37.1	81.5	69.6
March	82.2	72.9	75.0	63.5	64.2	52.4	82.9	73.5	35.1	36.4	81.0	69.6
April	77.6	64.7	74.2	62.5	69.1	55.5	81.5	74.3	39.5	39.0	83.8	76.2
May	74.3	63.4	73.5	62.3	77.7	62.2	80.6	74.0	44.6	42.1	83.6	75.7
June	72.4	63.3	73.8	62.9	84.6	68.4	81.4	74.8	43.3	40.7	83.3	73.6
July	68.4	57.0	74.6	64.1	87.6	71.8	80.4	75.0	47.2	43.6	85.5	72.7
August	69.8	60.4	76.3	66.1	85.9	69.3	79.4	73.2	77.1	70.7	82.0	71.3
September	87.9	86.1	77.0	72.6	73.8	60.2	78.9	74.1	84.6	82.8	78.0	70.2
October	90.6	81.1	77.1	73.7	65.7	54.0	79.7	75.6	245.8	170.2	81.3	68.3
November	85.2	73.7	75.8	67.7	61.5	51.2	82.8	77.7	238.9	202.7	76.8	62.4
December	86.6	81.3	73.2	64.5	59.8	51.1	84.3	79.7	145.2	122.0	77.6	70.7

Month and year	Tobacco manufactures						Paper and printing	
	Group index		Chewing and smoking tobacco and snuff		Cigars and cigarettes		Group index	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	105.7	104.1	102.7	101.4	106.2	104.5	99.2	96.2
1924 average	98.8	99.4	102.7	101.6	98.2	99.2	99.7	99.5
1925 average	95.5	96.5	94.6	97.0	95.6	96.3	101.1	104.3
1926 average	90.9	92.1	93.1	94.0	90.4	91.8	104.1	110.8
1927 average	93.4	91.0	82.6	84.8	94.9	91.8	104.1	111.0
1928 average	90.7	86.1	75.6	77.4	92.8	87.2	105.0	112.3
1929 average	83.9	81.8	68.0	71.3	86.0	83.1	111.3	119.5
1930 average	78.3	72.7	69.8	71.3	79.4	72.9	108.0	114.6
1931 average	72.1	60.1	71.9	69.0	72.1	58.9	96.3	97.3
1932 average	64.0	47.3	76.2	66.0	62.5	45.0	85.0	74.8
1933 average	59.7	42.5	74.5	63.1	57.9	39.9	86.2	69.3
1934 average	62.6	47.1	75.6	67.4	60.9	44.6	94.8	79.6
1935 average	57.9	46.1	67.8	66.2	56.6	43.5	97.0	85.3
1935								
January	56.5	41.5	73.5	68.5	54.3	38.1	95.6	83.4
February	57.3	40.8	72.6	66.7	55.3	37.5	96.7	84.1
March	57.8	44.3	70.6	67.7	56.1	41.3	96.9	84.5
April	56.8	43.1	68.7	64.9	55.3	40.3	96.9	84.6
May	56.6	43.8	66.3	64.5	55.3	41.2	96.5	84.8
June	57.8	46.8	66.6	67.2	56.7	44.2	95.6	83.4
July	57.6	47.6	65.8	66.8	56.5	45.1	95.5	81.4
August	57.9	46.6	64.4	65.1	57.0	44.2	95.9	83.0
September	58.9	49.4	65.3	66.7	58.1	47.2	97.3	86.2
October	60.0	50.5	66.2	65.4	59.2	48.6	98.3	88.2
November	59.7	48.9	66.2	63.7	58.8	47.0	98.7	88.0
December	58.2	49.6	67.1	67.1	57.1	47.4	99.7	91.8

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Paper and printing—Continued							
	Boxes, paper		Paper and pulp		Printing and publishing, book and job		Printing and publishing, newspapers and periodicals	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	100.0	97.3	100.0	98.4	98.3	95.5	98.9	94.7
1924 average	99.5	99.7	97.3	97.5	100.7	100.0	101.0	100.6
1925 average	100.5	103.0	102.7	104.1	101.0	104.5	100.1	104.7
1926 average	102.1	106.9	105.8	109.1	104.9	112.5	101.7	110.3
1927 average	99.2	104.0	102.2	105.3	106.9	114.1	102.2	111.1
1928 average	96.3	102.0	100.8	105.3	107.4	113.6	104.5	113.6
1929 average	97.9	102.9	106.1	112.5	113.1	118.7	111.0	121.8
1930 average	90.7	91.6	102.5	104.6	110.9	115.6	109.9	119.4
1931 average	81.8	79.0	89.5	82.1	100.7	99.1	101.8	108.0
1932 average	70.5	60.1	82.4	61.7	85.8	73.4	92.8	88.6
1933 average	77.0	62.7	90.3	64.9	79.4	62.5	93.3	80.0
1934 average	84.9	75.4	105.3	79.2	85.7	72.0	98.5	87.4
1935 average	86.7	80.5	109.1	88.6	87.8	78.0	99.2	90.2
1935								
January	83.2	74.9	106.8	83.5	87.7	78.1	98.4	89.5
February	84.6	76.5	108.7	86.8	89.3	78.1	98.0	88.8
March	86.3	79.6	109.7	88.4	87.4	77.0	98.8	89.2
April	85.7	78.1	109.8	87.3	87.1	77.1	99.4	90.5
May	84.5	75.5	109.9	86.9	86.2	78.8	99.6	90.4
June	83.1	74.5	109.1	87.4	85.1	75.6	99.0	89.4
July	83.3	73.9	108.9	85.1	86.6	75.8	97.0	85.3
August	85.3	78.7	108.8	87.2	87.6	76.5	96.5	86.3
September	88.8	85.3	109.2	90.7	87.6	77.6	99.4	90.5
October	92.6	91.8	109.1	93.3	88.2	78.3	100.7	92.1
November	92.9	89.1	109.0	91.7	89.1	78.4	101.2	93.1
December	90.4	87.6	110.0	94.4	91.2	84.7	102.4	96.8

Month and year	Chemicals and allied products									
	Group index		Other than petroleum refining (subgroup)		Chemicals		Cottonseed—oil, cake, and meal		Druggists' preparations	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	102.9	102.2	102.9	102.1	105.7	101.8	87.8	83.9	97.7	91.8
1924 average	96.7	96.3	96.9	96.8	98.0	98.1	100.5	94.9	96.8	97.5
1925 average	100.4	101.5	100.2	101.0	96.3	100.1	111.7	121.2	105.5	110.7
1926 average	106.7	108.8	105.6	107.6	(1)	(1)	(1)	(1)	108.3	113.4
1927 average	104.1	107.9	102.7	106.7	(1)	(1)	127.0	151.3	110.4	119.2
1928 average	102.9	108.1	102.4	108.1	(1)	(1)	(1)	(1)	106.6	113.1
1929 average	115.6	121.0	113.4	118.5	109.2	120.0	109.0	118.9	116.4	124.4
1930 average	109.5	112.2	105.8	106.6	99.5	103.5	(1)	(1)	108.2	116.3
1931 average	95.1	91.8	92.5	87.5	85.1	84.2	84.5	88.5	103.2	105.3
1932 average	84.0	70.4	81.1	65.8	72.9	63.0	89.7	79.0	90.3	82.4
1933 average	94.7	74.3	93.5	71.6	87.2	71.9	87.2	74.2	90.7	81.0
1934 average	108.6	89.4	108.0	87.9	108.1	92.4	83.4	76.2	101.1	92.1
1935 average	109.9	96.5	110.0	95.7	106.9	97.7	70.8	71.5	98.9	95.8
1935										
January	108.4	91.6	108.2	90.5	103.0	90.8	76.0	69.8	101.3	96.8
February	109.4	93.2	109.9	92.5	102.8	91.0	70.7	68.9	102.4	97.9
March	112.7	96.1	113.9	96.0	103.4	93.7	74.9	75.1	98.9	95.9
April	111.5	95.9	112.3	95.6	106.9	96.2	53.6	49.4	98.9	97.7
May	108.9	94.8	108.0	94.1	107.1	97.8	42.3	38.3	96.8	93.9
June	107.2	95.9	106.4	93.7	108.1	98.0	43.3	42.0	95.8	93.7
July	106.8	95.4	105.7	93.8	109.0	101.6	46.7	48.3	95.1	92.3
August	107.9	97.0	106.9	95.4	107.7	100.8	59.6	62.5	97.3	92.0
September	110.7	99.0	110.8	97.8	108.0	98.8	86.1	88.8	99.5	97.3
October	113.1	100.6	113.7	100.1	108.9	100.1	107.4	112.4	101.6	99.9
November	112.4	99.1	112.9	99.2	109.5	101.9	98.1	104.2	100.3	94.7
December	111.1	100.8	111.4	99.8	108.8	102.1	90.5	98.0	98.8	97.2

[1] Data not available.

Table 3.—Indexes of Employment and Pay Rolls in Manufacturing Industries—Continued

Month and year	Chemicals and allied products—Continued											
	Explosives		Fertilizers		Paints and varnishes		Rayon and allied products		Soap		Petroleum refining	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	108.5	109.5	100.5	99.1	95.6	91.6	87.3	91.3	104.9	105.7	103.0	102.3
1924 average	94.8	97.6	93.1	93.6	97.6	99.8	93.1	95.5	100.0	100.0	96.1	94.6
1925 average	96.7	92.9	106.4	107.3	106.8	108.6	119.6	113.2	95.1	94.3	100.9	103.1
1926 average	98.7	92.2	112.8	118.4	(1)	(1)	(1)	(1)	(1)	(1)	110.8	112.7
1927 average	98.5	97.6	100.8	106.9	117.5	123.3	164.8	141.2	82.9	100.3	109.9	111.9
1928 average	95.4	92.2	107.6	109.1	(1)	(1)	(1)	(1)	(1)	(1)	104.7	108.3
1929 average	95.3	102.0	113.4	108.3	122.3	129.6	244.4	220.2	88.6	96.7	124.4	129.2
1930 average	79.7	74.7	111.0	104.2	(1)	(1)	242.2	214.1	(1)	(1)	124.9	130.4
1931 average	80.4	66.9	78.8	73.4	94.4	90.3	241.9	188.4	87.4	90.2	106.2	105.8
1932 average	66.4	45.3	62.4	49.6	82.2	66.8	217.0	140.4	83.3	75.0	96.1	85.4
1933 average	76.3	52.3	82.5	55.8	85.7	64.3	281.9	178.8	89.8	73.3	99.8	83.1
1934 average	93.6	71.6	106.4	79.3	100.3	79.0	307.6	215.4	100.4	87.2	111.1	94.3
1935 average	87.4	74.0	101.7	84.6	107.2	89.9	342.8	252.0	101.0	95.8	109.6	99.2
1935												
January	88.1	68.3	111.0	83.6	98.7	79.4	338.0	245.4	99.1	90.7	109.0	95.2
February	89.3	75.5	120.3	91.1	102.2	83.7	346.8	252.3	102.1	94.3	107.3	95.3
March	88.3	73.0	167.5	130.4	104.2	86.2	348.9	252.3	103.3	95.9	107.9	96.4
April	84.6	69.3	155.3	119.9	109.2	91.9	334.9	242.7	102.7	97.0	108.3	96.9
May	87.3	74.4	110.1	91.7	112.6	95.1	326.9	237.8	98.2	93.8	108.3	96.8
June	86.5	72.6	79.2	69.2	112.5	94.0	325.9	240.5	99.5	95.8	110.6	99.3
July	86.1	70.0	68.0	62.0	108.6	88.9	327.9	240.2	99.3	94.4	111.2	100.5
August	86.5	76.9	69.5	63.3	105.5	87.8	340.3	253.4	98.0	93.8	112.2	102.5
September	86.2	71.3	82.6	77.1	106.7	89.5	353.6	264.1	103.1	99.4	110.1	102.8
October	89.8	80.2	88.8	78.6	109.2	94.8	356.8	263.5	105.4	101.3	110.9	102.2
November	89.9	80.2	83.9	72.5	109.3	94.0	356.1	263.3	103.7	98.3	110.3	98.8
December	86.7	76.2	84.5	75.2	107.9	93.7	357.9	268.0	97.3	94.6	109.6	104.0

Month and year	Rubber products							
	Group index		Rubber boots and shoes		Rubber goods, other than boots, shoes, tires, and inner tubes		Rubber tires and inner tubes	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1923 average	102.6	101.0	117.0	118.7	103.1	100.1	97.7	96.8
1924 average	91.8	92.9	83.6	82.3	91.6	92.7	94.5	95.7
1925 average	105.6	106.1	99.4	99.0	105.3	107.2	107.8	107.5
1926 average	105.1	107.0	103.0	101.7	(1)	(1)	105.4	107.2
1927 average	105.7	110.0	106.8	113.2	110.3	115.5	103.3	107.0
1928 average	111.1	117.5	105.0	107.1	(1)	(1)	109.9	116.8
1929 average	111.0	115.1	102.1	105.6	120.3	126.4	110.0	113.2
1930 average	85.9	84.7	82.0	77.4	(1)	(1)	79.0	79.3
1931 average	73.9	62.5	63.2	48.6	102.3	89.9	64.9	56.2
1932 average	65.4	44.9	52.5	37.7	94.1	70.0	57.1	37.7
1933 average	74.7	50.2	55.1	42.5	112.2	79.5	64.7	41.7
1934 average	84.1	63.7	60.5	48.8	122.4	94.3	75.2	56.4
1935 average	83.1	68.7	56.6	48.4	124.1	106.1	72.3	60.4
1935								
January	83.1	69.4	59.2	51.3	120.4	102.0	74.7	62.2
February	84.2	71.9	59.1	49.4	123.9	104.9	75.3	65.7
March	84.5	70.6	58.2	49.8	126.1	107.1	75.1	62.7
April	83.6	71.2	52.9	43.8	126.7	106.7	74.9	65.4
May	82.4	66.5	53.1	43.2	124.8	104.6	73.6	58.7
June	80.9	64.9	52.9	41.8	120.5	97.7	72.9	58.9
July	78.3	61.3	51.0	41.7	117.6	94.9	70.3	54.2
August	79.1	64.3	57.6	49.4	117.1	98.6	69.7	55.8
September	81.1	68.8	58.2	50.4	123.2	108.9	70.3	59.0
October	82.8	70.8	58.9	52.9	128.7	116.6	70.7	59.0
November	82.7	70.3	58.5	50.1	130.7	113.7	69.8	59.9
December	83.0	74.5	60.1	56.6	129.2	117.2	70.5	63.8

[1] Data not available.

Trade, Public Utility, Mining and Service Industries, and Private Building Construction

Employment, Pay Rolls, and Earnings in December 1935

COMPARED with November, 8 of the 17 nonmanufacturing industries surveyed by the Bureau of Labor Statistics show increases in employment in December and 13 show gains in pay rolls. The largest percentage gains (23.0 in employment and 95.3 in pay rolls) were reported by anthracite mining. These increases largely offset the sharp declines in this industry in November. Bituminous-coal mines reported 3.9 percent more employees, and employment in metalliferous mining advanced 1.8 percent. Gains in the metal mining industry have been reported each month since July. Employment in retail trade climbed 10.3 percent, largely because of the 31.6-percent gain in the subgroup, general merchandising (department, variety, and general-merchandising stores and mail-order houses), which took on additional employees to handle the Christmas trade. Continuing the upward trend that has been in evidence since July, employment in the wholesale trade increased 0.4 percent in December. This increase carried the employment index for wholesale establishments to the highest level since February 1931. Employment in brokerage firms in December again advanced (3.5 percent), reflecting increased business in the security markets.

Seasonal declines in employment are shown in quarrying and nonmetallic mining, private building construction, and dyeing and cleaning. The decline in private building construction during the month, however, was relatively moderate for this time of year.

In the aggregate there were 351,000 more employees on the pay rolls of the 17 nonmanufacturing industries in December than in November, and weekly wage disbursements increased $9,000,000. A comparison with December 1934 shows 150,000 more employees in these industries in December 1935 and $10,800,000 more in weekly pay rolls.

Indexes of employment and pay rolls, per capita weekly earnings, average hours worked per week, and average hourly earnings in December 1935 for 13 of the trade, public utility, mining, and service industries, together with percentage changes from November 1935 and December 1934, are shown in table 4. Similar information, except indexes of employment and pay rolls, is also presented for private building construction. Man-hour data and indexes of employment and pay rolls are not available for banking, brokerage, or insurance establishments, but the table shows percentage changes in employment, pay rolls, and per capita weekly earnings for these three industries.

Table 4.—Employment, Pay Rolls, Hours, and Earnings, in Selected Nonmanufacturing Industries, December 1935

Average hourly
Average hours worked
Average weekly

Table 4.—Employment, Pay Rolls, Hours, and Earnings, in Selected Nonmanufacturing Industries, December 1935

Industry	Employment			Pay roll			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index December 1935 (average 1929 =100)	Percentage change from—		Index December 1935 (average 1929 =100)	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—		December 1935	Percentage change from—	
		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934		November 1935	December 1934
Coal mining:													*Cents*		
Anthracite	57.3	+23.0	−7.0	55.4	+95.3	+5.9	$28.08	+58.7	+13.9	33.5	+50.2	+8.9	83.1	+3.2	+1.6
Bituminous	79.1	+3.9	−.8	69.5	+6.0	+21.9	22.75	+2.0	+22.9	28.7	+4.4	+14.6	80.6	−1.7	+9.5
Metalliferous mining	53.5	+1.8	+20.5	43.2	+9.0	+46.9	24.91	+7.1	+21.9	42.5	+6.8	+21.2	58.5	+.3	+2.1
Quarrying and nonmetallic mining	43.1	−7.7	+2.4	29.7	−7.4	+25.8	17.39	+.5	+22.8	35.4	−.8	+16.8	48.8	+1.5	−.5
Crude-petroleum producing	72.2	−1.1	−8.3	59.9	+5.2	+.7	30.09	+6.4	+9.8	38.5	+6.4	+6.1	78.2	−.3	−.5
Public utilities:															
Telephone and telegraph	69.6	−.3	−.1	75.6	+1.0	+3.3	29.25	+1.4	+3.4	38.5	−1.5	−1.0	78.4	+2.8	+5.3
Electric light and power and manufactured gas	86.8	−.9	+3.8	86.0	+3.2	+9.8	31.48	+4.0	+5.8	40.0	+1.8	+3.5	78.5	+1.8	+2.4
Electric-railroad and motor-bus operation and maintenance	70.5	−.8	−.7	66.1	+3.6	+6.1	29.81	+4.3	+7.0	47.0	+4.0	+4.4	62.6	+.8	+2.4
Trade:															
Wholesale	86.8	+.4	+2.1	68.6	+2.6	+5.9	27.43	+2.2	+3.7	42.4	+1.7	+3.7	64.5	+.5	−.8
Retail	93.3	+10.3	+2.4	69.4	+9.5	+4.8	19.62	−2.4	+2.3	43.3	+2.1	+2.5	49.1	−3.5	−.3
General merchandising	133.7	+31.6	+4.1	104.9	+27.9	+6.0	16.79	−2.8	+1.8	41.9	+6.6	+3.9	41.4	−8.6	−.9
Other than general merchandising	82.7	+3.2	+1.7	62.1	+4.1	+4.5	22.68	+.8	+2.7	43.9	+1.2	+2.1	52.4	−.8	−.1
Hotels (year-round) [2]	80.8	−.8	+1.0	64.2	−.9	+3.2	13.75	−.1	+2.2	48.3	0	+2.6	28.2	0	+.1
Laundries	81.1	−.2	+2.0	67.5	+1.1	+6.6	15.71	+1.3	+4.5	41.2	+1.5	+5.0	36.6	0	+.1
Dyeing and cleaning	73.4	−3.8	+1.4	52.9	−4.4	+3.5	17.74	−.6	+2.1	41.2	+.2	−2.0	42.6	−.5	−.7
Banks	[3]	+.2	+2.1	[3]	+.3	+1.9	31.71	+.1	−.2	[3]	[3]	[3]	[3]	[3]	[3]
Brokerage	[3]	+3.5	+14.6	[3]	+5.0	+19.4	35.71	+1.4	+4.2	[3]	[3]	[3]	[3]	[3]	[3]
Insurance	[3]	+.1	+.7	[3]	+1.2	+2.7	36.59	+1.1	+2.0	[3]	[3]	[3]	[3]	[3]	[3]
Building construction	[3]	−6.7	+4.9	[3]	−4.3	+14.5	25.10	+2.6	+9.6	31.2	+3.3	+14.9	80.5	−.4	−3.0

[1] Average weekly earnings are computed from figures furnished by all reporting establishments. Average hours and average hourly earnings are computed from data furnished by a smaller number of establishments as some firms do not report man-hour information. Percentage changes over year computed from indexes.

[2] Cash payments only; the additional value of board, room, and tips cannot be computed.

[3] Not available.

Index of Employment and Pay Rolls in Trade, Public Utility, Mining, and Service Industries, January 1934 to December 1935

Indexes of employment and pay rolls in 13 trade, public utility, mining, and service industries and 2 subdivisions under retail trade are shown by months in table 5 for the period January 1934 to December 1935.

Table 5.—Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1934 to December 1935 [1]

[12-month average, 1929=100]

Month	Anthracite mining				Bituminous-coal mining				Metalliferous mining				Quarrying and nonmetallic mining			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	64.1	62.9	73.2	57.5	75.8	80.0	51.3	59.6	39.6	44.3	25.4	30.1	39.7	36.9	21.3	20.8
February	63.2	64.4	65.8	64.3	76.1	81.1	54.6	66.1	40.3	44.3	26.0	29.9	38.8	37.3	21.0	22.2
March	67.5	51.4	82.4	38.9	77.8	81.6	58.9	67.5	39.8	45.0	25.9	30.9	42.0	40.5	24.1	24.9
April	58.2	52.6	51.7	49.9	72.2	74.3	51.4	45.0	41.7	46.0	27.2	31.8	48.7	45.3	29.9	28.9
May	63.8	53.5	64.0	49.5	76.7	75.3	54.4	49.1	40.8	44.4	25.6	31.4	54.3	49.5	35.0	32.8
June	57.5	56.8	53.3	66.0	76.7	77.9	55.1	64.7	41.0	46.0	26.7	31.5	56.6	50.4	37.0	33.8
July	53.6	49.4	42.3	37.5	77.0	70.0	49.7	35.9	39.9	45.2	25.1	31.1	55.6	50.9	35.0	34.4
August	49.5	38.7	39.7	28.3	77.1	73.4	50.4	45.8	42.7	46.3	27.0	33.4	54.7	51.0	34.0	36.3
September	56.9	46.0	47.0	38.2	78.2	77.1	51.4	60.1	42.3	48.9	25.9	35.4	53.3	50.0	32.4	35.4
October	58.5	58.8	48.3	55.9	79.3	74.3	57.6	69.8	43.3	51.6	28.2	38.7	51.8	50.0	32.1	36.5
November	60.7	46.6	51.2	28.4	79.8	76.1	58.3	65.5	43.2	52.6	28.5	39.6	49.5	46.7	29.4	32.1
December	61.6	57.3	52.3	55.4	79.7	79.1	57.0	69.5	44.4	53.5	29.4	43.2	42.1	43.1	23.6	29.7
Average	59.6	53.2	55.9	47.5	77.2	76.7	54.2	58.2	41.6	47.3	26.7	33.9	48.9	46.0	29.6	30.6

Month	Crude-petroleum producing				Telephone and telegraph				Electric light and power and manufactured gas				Electric-railroad and motor-bus operation and maintenance [2]			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	73.2	74.9	53.0	55.5	70.2	70.5	69.0	73.9	82.2	82.7	73.8	78.0	70.5	71.2	59.2	62.9
February	72.4	74.2	50.5	54.9	69.8	70.0	67.9	72.9	81.2	82.2	74.4	78.3	71.0	71.0	60.1	63.1
March	72.8	74.0	52.5	56.0	70.0	69.8	70.4	75.3	81.7	[3]82.3	75.6	79.4	71.7	71.3	62.2	63.4
April	74.0	74.9	53.4	56.7	70.2	69.7	68.8	73.1	82.4	82.6	76.8	79.0	72.2	71.4	62.9	63.3
May	76.7	76.0	56.4	57.8	70.2	70.0	71.4	73.7	83.1	[3]83.3	77.6	79.8	72.6	71.6	63.0	63.6
June	80.0	76.7	56.9	59.2	70.4	70.2	71.3	74.4	84.0	[3]83.9	77.8	79.8	73.2	71.7	63.2	63.9
July	81.6	77.4	60.0	59.9	71.0	70.3	72.3	75.7	85.0	[3]84.8	81.1	81.5	73.1	71.5	63.8	63.4
August	82.7	76.3	61.2	58.9	71.0	70.5	74.0	75.5	85.6	[3]86.8	79.9	82.8	72.8	71.2	62.8	63.3
September	81.8	75.1	59.7	60.9	70.9	70.4	72.2	73.8	85.8	86.9	79.3	84.5	72.5	71.0	62.4	64.0
October	79.5	74.7	60.8	57.9	70.3	70.0	74.9	74.9	85.8	87.4	80.6	84.4	72.2	71.1	63.0	64.1
November	78.8	73.0	59.0	56.9	69.9	69.8	72.2	74.9	85.5	[3]87.6	79.6	83.4	71.8	71.1	61.8	63.8
December	78.7	72.2	59.5	59.9	69.7	69.6	73.2	75.6	83.6	86.8	78.3	86.0	71.0	70.5	62.3	66.1
Average	77.7	75.0	56.9	57.9	70.3	70.1	71.5	74.5	83.8	84.8	77.9	81.4	72.1	71.2	62.2	63.7

[1] Comparable indexes for earlier years for all of these industries, except year-round hotels, will be found in the November 1934 and subsequent issues of this pamphlet, or the February 1935 and subsequent issues of the Monthly Labor Review. Comparable indexes for year-round hotels will be found in the June 1935 issue of this pamphlet, or the September 1935 issue of the Monthly Labor Review.

[2] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 1.

[3] Revised.

Table 5.—Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1934 to December 1935—Continued

Month	Wholesale trade				Total retail trade				Retail trade—general merchandising				Retail trade—other than general merchandising			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	80.6	84.2	60.3	63.9	79.8	79.5	59.0	59.7	86.6	87.3	71.1	73.5	78.0	77.4	56.5	56.9
February	81.2	84.6	61.0	64.6	79.6	79.2	58.8	59.3	85.0	86.2	68.9	72.3	78.2	77.3	56.7	56.6
March	81.8	84.0	62.0	65.2	81.5	80.2	59.8	60.4	90.1	88.6	71.5	74.1	79.3	78.0	57.4	57.6
April	82.1	83.2	63.1	64.8	82.5	83.5	61.2	62.5	91.0	94.4	74.0	77.5	80.3	80.7	58.5	59.4
May	82.8	82.5	62.6	64.6	82.9	82.2	61.5	62.0	92.0	91.3	74.5	76.3	80.5	79.8	58.8	59.0
June	82.3	82.1	62.8	64.6	82.6	82.2	61.4	62.5	90.6	91.2	73.9	76.7	80.5	79.8	58.8	59.5
July	82.2	82.1	63.8	64.6	79.0	79.3	60.1	60.5	83.0	85.5	69.5	72.0	77.9	77.7	58.2	58.1
August	82.5	82.7	62.7	64.8	77.8	78.0	58.4	59.3	81.2	83.1	66.9	69.5	76.9	76.7	56.6	57.2
September	83.5	83.7	63.6	67.2	81.7	81.8	60.6	62.5	91.5	92.2	74.0	77.2	79.1	79.1	57.8	59.4
October	84.3	85.7	64.5	66.8	82.6	83.8	61.9	63.2	94.2	97.1	77.3	79.8	79.5	80.3	58.7	59.8
November	85.1	86.4	64.2	66.9	83.7	84.6	61.9	63.4	99.9	101.6	80.2	82.0	79.4	80.1	58.1	59.6
December	85.0	86.8	64.8	68.6	91.1	93.3	66.2	69.4	128.4	133.7	99.0	104.9	81.3	82.7	59.4	62.1
Average	82.8	84.0	63.0	65.5	82.1	82.3	60.9	62.1	92.8	94.3	75.1	78.0	79.2	79.1	58.0	58.8

Month	Year-round hotels				Laundries				Dyeing and cleaning			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	76.4	80.3	57.2	62.2	78.5	79.6	61.7	63.9	68.1	70.3	46.8	50.4
February	78.9	81.1	60.9	63.5	78.4	79.6	61.7	64.1	68.1	69.6	46.3	49.8
March	80.4	80.8	62.2	63.9	79.2	79.7	62.7	64.6	72.4	72.5	51.7	53.5
April	81.5	81.1	62.7	63.6	80.5	80.0	64.4	65.5	79.9	79.9	60.8	61.9
May	81.8	81.6	62.9	63.7	82.1	81.1	66.9	66.6	84.3	80.9	65.1	61.7
June	81.9	81.3	62.9	63.5	84.0	82.3	68.3	68.2	84.9	83.6	64.1	65.7
July	80.4	80.3	61.5	62.1	84.6	84.4	68.2	70.9	80.5	81.7	58.9	61.5
August	80.0	80.7	60.2	62.0	83.7	84.2	66.6	69.2	78.6	79.4	56.7	58.2
September	80.0	81.1	61.0	63.1	82.9	83.0	65.9	67.9	80.0	82.1	59.0	63.1
October	80.9	81.6	62.7	64.3	81.7	81.9	64.8	67.1	80.3	80.4	59.1	61.1
November	80.6	81.5	62.4	64.8	80.3	81.3	63.7	66.7	75.8	76.3	53.9	55.4
December	80.0	80.8	62.2	64.2	79.5	81.1	63.3	67.5	72.4	73.4	51.1	52.9
Average	80.2	81.0	61.6	63.4	81.3	81.5	64.9	66.8	77.1	77.5	56.1	57.9

Employment on Class I Railroads

According to reports of the Interstate Commerce Commission there were 970,474 workers exclusive of executives and officials employed in December by class I railroads—that is, roads having operating revenue of $1,000,000 or over. This is 1.4 percent lower than the number employed in November (984,319). The total compensation in December of these employees was $134,649,190 compared with $132,687,315 in November, a gain of 1.5 percent.

The Commission's preliminary index of employment for December, taking the 3-year average (1923–25) as 100, is 55.1. The November index is 55.8.

Trend of Private Employment, by States

CHANGES in employment and pay rolls from November to December 1935 are shown by States in table 6 for all groups combined (except building construction) and for all manufacturing industries combined. Data for nonmanufacturing groups which were formerly published in this table are omitted from the present analysis, but will be furnished on request.

The percentage changes shown in the table, unless otherwise noted, are unweighted—that is, the industries included in the manufacturing group and in the grand total have not been weighted according to their relative importance.

Table 6.—Comparison of Employment and Pay Rolls in Identical Establishments in December 1935, by Geographic Divisions and by States

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

Geographic division and State	Total—All groups					Manufacturing				
	Number of establishments	Number on pay roll December 1935	Percentage change from November 1935	Amount of pay roll (1 week) December 1935	Percentage change from November 1935	Number of establishments	Number on pay roll December 1935	Percentage change from November 1935	Amount of pay roll (1 week) December 1935	Percentage change from November 1935
New England	**13,766**	**838,647**	**+1.5**	**$17,979,867**	**+4.9**	**3,128**	**555,869**	**−(1)**	**$11,354,066**	**+5.7**
Maine	775	51,653	+2.9	990,601	+11.1	256	42,591	+3.7	792,585	+14.0
New Hampshire	659	34,459	−1.2	681,597	+4.7	181	27,207	−2.3	521,160	+5.8
Vermont	463	16,411	−.9	331,895	+(1)	124	10,100	−2.4	205,081	+.8
Massachusetts	[2] *8,617*	*457,532*	*+1.9*	*10,019,956*	*+5.3*	*1,549*	*255,860*	*+.1*	*5,232,390*	*+6.9*
Rhode Island	1,240	92,347	+1.1	1,906,978	+9.5	402	70,761	−.5	1,388,914	+11.7
Connecticut	2,012	186,245	+.9	4,048,840	+1.0	616	149,350	−.4	3,213,936	+.1
Middle Atlantic	**34,072**	**1,945,945**	**+3.0**	**46,970,308**	**+6.2**	**4,963**	**1,094,126**	**−.8**	**25,052,729**	**+.9**
New York	21,405	875,692	+3.7	22,183,544	+4.3	[3] *1,963*	*401,105*	*−.8*	*10,033,952*	*+2.4*
New Jersey	3,764	269,881	−.4	6,416,904	+1.5	[4] *753*	*232,359*	*−1.8*	*5,374,630*	+(1)
Pennsylvania	8,903	800,372	+3.4	18,369,860	+10.4	*2,247*	*460,662*	*−.4*	*9,644,147*	−(1)
East North Central	**18,913**	**1,898,396**	**+1.9**	**46,797,650**	**+3.8**	**6,642**	**1,403,820**	**+.5**	**35,597,031**	**+4.3**
Ohio	8,179	535,070	+2.4	12,944,098	+5.8	2,205	366,509	−.3	9,165,382	+4.5
Indiana	*1,804*	*206,730*	*+2.0*	*4,789,380*	*+6.0*	*849*	*168,884*	*+1.1*	*3,954,685*	*+5.6*
Illinois	[5] *4,423*	*510,333*	*+2.0*	*12,045,026*	*+4.4*	*2,080*	*320,295*	*+.8*	*7,463,718*	*+3.4*
Michigan	3,501	471,870	+1.8	13,070,002	+1.3	779	410,025	+1.0	11,826,303	+5.2
Wisconsin	[6] *1,006*	*174,393*	*+.3*	*3,949,144*	*+1.8*	*749*	*138,107*	[7] *−1.0*	*3,186,943*	[7] *+1.3*
West North Central	**11,256**	**402,651**	**+2.2**	**8,912,024**	**+3.5**	**2,050**	**178,584**	**+.7**	**3,920,951**	**+2.6**
Minnesota	1,972	85,109	+.2	1,981,004	+2.2	347	35,020	−2.4	813,575	−.6
Iowa	1,732	56,186	+1.7	1,201,568	+4.2	382	27,879	+1.0	588,270	+4.3
Missouri	3,281	163,219	+4.1	3,587,649	+6.2	747	78,684	+3.9	1,664,068	+6.8
North Dakota	540	4,965	−.8	113,227	+.6	43	666	−4.4	16,840	+.1
South Dakota	500	5,870	+2.4	129,016	+5.7	35	1,857	+4.7	39,940	+9.9
Nebraska	1,683	33,788	+.2	724,367	−1.3	155	10,838	−9.8	239,461	−11.4
Kansas	[8] *1,548*	*53,514*	*+2.0*	*1,175,193*	*+.1*	*541*	*23,640*	*+.1*	*558,797*	*+.1*
South Atlantic	**11,027**	**766,794**	**+2.0**	**14,261,462**	**+3.5**	**2,580**	**484,627**	**+.4**	**8,248,292**	**+3.5**
Delaware	236	13,399	+2.2	310,670	+5.1	79	8,695	+1.9	196,497	+6.7
Maryland	*1,529*	*109,852*	*+3.0*	*2,306,126*	*+3.0*	*549*	*69,017*	[7] *−.7*	*1,403,749*	[7] *+1.9*
District of Columbia	1,070	45,487	+0.8	1,068,417	+7.8	37	3,674	−.1	124,019	+.7
Virginia	2,180	102,043	+1.4	1,933,770	+3.2	401	60,755	+.4	1,115,910	+4.6
West Virginia	1,254	136,230	−.6	3,131,864	+1.3	234	53,351	−.3	1,246,709	+7.4
North Carolina	1,325	148,502	+.8	2,204,497	+2.5	571	136,916	+.6	2,013,906	+2.4
South Carolina	716	67,645	+1.4	939,763	+2.6	191	60,460	+1.0	814,179	+2.4
Georgia	1,488	97,988	+.5	1,550,824	+3.6	342	72,856	−.8	1,043,544	+2.7
Florida	1,229	45,648	+9.7	815,531	+13.2	176	18,903	+9.1	289,779	+3.8

See footnotes at end of table.

Table 6.—Comparison of Employment and Pay Rolls in Identical Establishments in December 1935, by Geographic Divisions and by States—Continued

Geographic division and State	Total—All groups					Manufacturing				
	Number of establishments	Number on pay roll December 1935	Percentage change from November 1935	Amount of pay roll (1 week) December 1935	Percentage change from November 1935	Number of establishments	Number on pay roll December 1935	Percentage change from November 1935	Amount of pay roll (1 week) December 1935	Percentage change from November 1935
East South Central	**4,690**	**263,745**	**+5.0**	**$4,667,475**	**+5.1**	**889**	**154,808**	**+0.8**	**$2,549,843**	**+3.6**
Kentucky	1,547	83,122	+1.9	1,696,921	−1.2	262	31,675	−4.0	649,149	+1.7
Tennessee	1,309	88,197	+1.6	1,500,867	+1.9	311	61,742	+.4	1,000,616	+.3
Alabama	1,255	75,663	+14.1	1,211,521	+21.3	220	50,870	+4.5	757,962	+10.8
Mississippi	579	16,763	+1.9	258,166	+3.1	96	10,521	+.9	142,116	+1.4
West South Central[9]	**4,235**	**167,981**	**+1.3**	**3,483,444**	**+3.1**	**819**	**82,209**	**−.6**	**1,623,083**	**+1.8**
Arkansas[10]	561	19,468	−.2	312,671	+2.5	103	10,355	−2.1	144,384	+2.5
Louisiana	1,007	43,181	+2.1	788,651	+3.8	208	21,271	−.1	332,316	+2.1
Oklahoma	1,456	41,227	+1.1	931,399	+4.0	127	10,130	−.6	217,427	+4.3
Texas	*1,211*	*64,105*	*+1.3*	*1,450,723*	*+2.2*	*381*	*40,453*	*−.4*	*928,956*	*+1.0*
Mountain	**4,677**	**129,909**	**−.8**	**3,130,191**	**+1.4**	**561**	**37,592**	**−9.2**	**865,454**	**−5.3**
Montana	765	19,124	−1.0	520,119	+2.6	81	5,001	−9.8	126,898	−2.8
Idaho	493	10,803	−7.1	226,769	−9.5	51	3,353	−23.6	66,477	−29.7
Wyoming	347	9,234	−1.1	264,579	+1.8	47	2,104	−5.4	58,477	−2.3
Colorado	1,281	45,068	+.3	1,041,013	+2.0	175	15,741	−6.3	365,919	−.8
New Mexico	354	6,707	+.3	141,204	+1.0	25	867	−3.0	14,370	+3.5
Arizona	585	15,079	+3.6	363,972	+9.4	43	2,705	+1.8	60,485	+7.6
Utah	604	20,499	−2.5	476,303	−1.3	106	6,781	−13.7	141,575	−10.8
Nevada	248	3,395	−2.2	96,232	+2.8	33	1,040	−.6	31,253	+1.8
Pacific	**6,578**	**409,411**	**−.1**	**10,520,305**	**+2.6**	**1,796**	**203,988**	**−4.5**	**5,192,427**	**−.5**
Washington	3,256	88,884	−1.3	2,123,916	+1.2	481	43,539	−5.7	1,000,500	−2.5
Oregon	1,332	45,300	−3.1	1,067,858	+.9	243	23,343	−8.0	517,585	−2.3
California	[11]*1,990*	*275,227*	*+.9*	*7,328,531*	*+3.3*	*1,072*	*137,106*	*−3.5*	*3,674,342*	*+.4*

[1] Less than 1/10 of 1 percent.
[2] Includes construction, municipal, agricultural, and office employment, amusement and recreation, professional services, and trucking and handling.
[3] Includes laundering and cleaning, and water, light, and power.
[4] Includes laundries.
[5] Includes automobile and miscellaneous services, restaurants, and building and contracting.
[6] Includes construction, but does not include hotels, restaurants, and public works.
[7] Weighted percentage change.
[8] Includes construction, miscellaneous services, and restaurants.
[9] November data revised. Percentage changes from October to November in total employment is +0.1; in manufacturing employment, −0.7; in total pay roll, +0.3; in manufacturing pay roll, +(1).
[10] November data revised. Percentage change from October in total employment is −1.6; in manufacturing employment, −5.1; in total pay roll, −1.8; in manufacturing pay roll, −6.1.
[11] Includes banks, insurance, and office employment.

Private Employment and Pay Rolls in Principal Cities

A COMPARISON of December employment and pay-roll totals with November totals in 13 cities of the United States having a population of 500,000 or over is made in table 7. The changes are computed from reports received from identical establishments in both months.

In addition to reports included in the several industrial groups regularly covered in the survey of the Bureau, reports have also been secured from establishments in other industries for inclusion in these city totals. As information concerning employment in building construction is not available for all cities at this time, figures for this industry have not been included in these city totals.

Table 7.—Fluctuations in Employment and Pay Rolls in Principal Cities, December 1935 as Compared with November 1935

Cities	Number of establishments reporting in both months	Number on pay roll		Percentage change from November 1935	Amount of pay roll		Percentage change from November 1935
		November 1935	December 1935		November 1935 (1 week)	December 1935 (1 week)	
New York City	16,894	677,331	697,776	+3.0	$17,580,670	$18,231,446	+3.7
Chicago, Ill	3,895	370,897	379,821	+2.4	9,167,149	9,675,406	+5.5
Philadelphia, Pa	2,633	220,056	224,159	+1.9	5,209,016	5,326,728	+2.3
Detroit, Mich	1,466	308,637	317,766	+3.0	9,044,218	9,195,076	+1.7
Los Angeles, Calif	3,016	143,933	149,181	+3.6	3,563,264	3,789,701	+6.4
Cleveland, Ohio	1,840	133,815	138,755	+3.7	3,290,975	3,479,612	+5.7
St. Louis, Mo	1,712	119,409	123,230	+3.2	2,616,619	2,757,055	+5.4
Baltimore, Md	1,293	81,723	84,459	+3.3	1,760,529	1,846,336	+4.9
Boston, Mass	3,527	164,202	168,052	+2.3	3,750,331	3,951,058	+5.4
Pittsburgh, Pa	1,586	188,087	193,573	+2.9	4,401,066	4,719,656	+7.2
San Francisco, Calif	1,575	87,871	89,152	+1.5	2,336,003	2,436,358	+4.3
Buffalo, N. Y	1,102	68,648	70,035	+2.0	1,641,060	1,726,050	+5.2
Milwaukee, Wis	723	70,817	72,181	+1.9	1,691,602	1,737,103	+2.7

Part II—Public Employment

WITH the exception of work provided by the construction program financed by the Emergency Relief Act of 1935, employment in the various agencies of the Federal Government was for the most part lower in December than in November (table 8).

Employment created by the Federal Government includes employment in the regular agencies of the Government, employment on the various construction programs wholly or partially financed by Federal funds, and employment on relief-work projects.

Construction projects financed by the Public Works Administration are those projects authorized by title II of the National Industrial Recovery Act of June 16, 1933. This program of public works was extended to June 30, 1937, by the Emergency Relief Appropriation Act of 1935.

The Works Program was inaugurated by the President in a series of Executive orders by authority of Public Resolution No. 11 approved April 8, 1935. Employment created by this program includes employment on Federal projects and employment on projects operated by the Works Progress Administration. Federal projects are those conducted by Federal agencies which have received allotments from The Works Program fund. Projects operated by the Works Progress Administration are those projects conducted under the supervision of the W. P. A.

The emergency-work program consists of projects authorized by the Federal Relief Administration since April 1, 1934. This program of providing employment through relief-work projects is being rapidly curtailed and the slack taken up by projects of the W. P. A. Emergency conservation program (Civilian Conservation Corps) created in April 1933 has been further extended under authority of the Emergency Relief Appropriation Act of 1935.

Table 8.—Summary of Federal Employment and Pay Rolls, December 1935

Class	Employment		Percentage change	Pay roll		Percentage change
	December	November		December	November	
Federal service:						
Executive	816,185	[1] 801,608	+1.8	$126,518,287	[1] $119,365,726	+5.2
Judicial	1,933	1,901	+1.7	512,027	492,917	+3.9
Legislative	4,975	5,063	−1.7	1,187,061	1,203,502	−1.4
Military	285,673	285,117	+.2	22,301,638	22,263,595	+.2
Construction projects:						
Financed by P. W. A.	[2] 231,692	[2] 271,111	−14.5	[2] 16,360,315	[2] 19,512,866	−16.2
Financed by R. F. C.	7,786	9,793	−20.5	869,459	1,001,408	−13.2
Financed by regular governmental appropriations	56,780	63,912	−11.2	3,707,963	4,077,395	−9.1
The Works Program [4]	2,552,637	[1] 1,370,705	+86.2	101,747,882	[1] 52,889,185	+92.4
Relief work:						
Emergency-work program	68,558	346,470	−80.2	1,844,813	8,253,626	−77.6
Emergency conservation work	[5] 506,605	[6] 543,958	−6.9	[5] 21,905,516	[6] 23,957,751	−8.6

[1] Revised.
[2] Includes 9,203 wage earners and $446,783 pay roll covering P. W. A. projects financed from E. R. A. A., 1935.
[3] Includes 3,422 wage earners and $149,545 pay roll covering P. W. A. projects financed from E. R. A. A., 1935.
[4] Data covering P. W. A. projects financed from E. R. A. A., 1935, funds are not included in The Works Program and shown only under P. W. A.
[5] 41,052 employees and pay roll of $5,550,475 included in executive service.
[6] 46,621 employees and pay roll of $6,418,511 included in executive service.

Executive Service of the Federal Government

According to information furnished by the Civil Service Commission, 816,185 workers were employed in December in the executive branch of the Federal Government. (See table 9.) Compared with November, this represents an increase of 1.8 percent and is 19.0 percent more than the number employed in the corresponding month of 1934.

Of the total workers employed in the executive service in December, slightly less than 14 percent were working in Washington.

Table 9.—Employees in Executive Service of the United States, December 1934, November 1935, and December 1935

Item	District of Columbia			Outside District of Columbia			Entire service		
	Permanent	Temporary	Total	Permanent	Temporary [1]	Total	Permanent	Temporary [1]	Total
Number of employees:									
December 1934 [2]	88,343	7,599	95,942	508,411	81,622	590,033	596,754	89,221	685,975
November 1935 [2]	103,108	8,088	111,196	589,395	101,017	690,412	692,503	109,105	801,608
December 1935	104,282	7,806	112,088	607,060	97,037	704,097	711,342	104,843	[3] 816,185
Gain or loss:									
December 1934 to December 1935	+15,939	+207	+16,146	+98,649	+15,415	+114,064	+114,585	+15,624	+130,209
November 1935 to December 1935	+1,174	−282	+892	+17,665	−3,980	+13,685	+18,871	−4,253	+14,618
Percentage change:									
December 1934 to December 1935	+18.04	+2.72	+16.83	+19.40	+18.89	+19.33	+19.20	+17.51	+18.98
November 1935 to December 1935	+1.14	−3.49	+.80	+3.00	−3.94	+1.98	+2.72	−3.91	+1.82
Labor turn-over, December 1935:									
Additions [4]	1,640	1,131	2,771	22,631	14,565	37,196	24,271	15,696	39,967
Separations [4]	1,077	747	1,824	6,617	17,253	23,870	7,694	18,000	25,694
Turn-over rate per 100	1.04	9.40	1.63	1.11	14.71	3.42	1.10	14.67	3.18

[1] Not including field employees of the Post Office Department or 15,005 employees hired under letters of authorization by the Department of Agriculture with a pay roll of $616,367.

[2] Revised.

[3] Includes 304 employees by transfer previously reported as separations by transfer, not actual additions for December.

[4] Not including employees transferred within the Government service, as such transfers should not be regarded as labor turn-over.

The most pronounced increase in employment in the executive departments of the Federal Government during December occurred in the Works Progress Administration. Small gains were shown, however, by the Treasury Department, the Department of Agriculture, the Navy Department, and the Resettlement Administration. The largest decrease in the number of employees, on the other hand, was reported by the War Department. There were also noticeable losses in the Farm Credit Administration, the Federal Emergency Relief Administration, and the Tennessee Valley Authority.

Construction Projects Financed by the Public Works Administration

APPROXIMATELY 232,000 employees were working at the site of construction projects financed by the Public Works Administration in December.[1] Compared with the previous month, this is a decrease of 39,000 in the number of wage earners employed. Pay rolls for the month totaled $16,360,000, or $3,152,000 less than in November.

Federal construction projects are financed by allotments made by the Public Works Administration to the various agencies and departments of the Federal Government from funds provided under the National Industrial Recovery Act. The major portion of the Federal housing program now under way, however, is financed by funds provided under the Emergency Relief Appropriation Act of 1935.

[1] Unless otherwise expressly stated, when December is referred to in this section, it may be accepted as meaning the month ending December 15.

The work is performed either by commercial firms, which have been awarded contracts, or by day labor hired directly by the Federal agencies.

Non-Federal projects are financed by allotments made by the Public Works Administration from funds available under either the National Industrial Recovery Act or the Emergency Relief Appropriation Act of 1935. Most of the allotments have been made to the States and their political subdivisions, but occasionally allotments have been made to commercial firms. In financing projects for the States or their political subdivisions from funds appropriated under the National Industrial Recovery Act, the Public Works Administration makes a direct grant of not more than 30 percent of the total construction cost. When funds provided under the Emergency Relief Appropriation Act of 1935 are used to finance a non-Federal project, as much as 45 percent of the total cost may be furnished in the form of a grant. The remaining 55 percent or more of the cost is financed by the recipient. When circumstances justify such action, the Public Works Administration may provide the grantee with the additional funds by means of a loan. Allotments to commercial enterprises are made only as loans. All loans made by the Public Works Administration carry interest charges and have a definite date of maturity. Collateral posted with the Public Works Administration to secure loans may be offered for sale to the public. In this way a revolving fund is provided which enlarges the scope of the activities of the Public Works Administration.

Commercial loans have been made, for the most part, to railroads. Railroad work financed by loans made by the Public Works Administration falls under three headings: First, construction work in the form of electrification, the laying of rails and ties, repairs to buildings, bridges, etc.; second, the building and repairing of locomotives and passenger and freight cars in shops operated by the railroads; and third, locomotive and passenger- and freight-car building in commercial shops.

Information concerning the first type of railroad work, i. e., construction, is shown in table 10, page 776. Employment in car and locomotive shops owned by the railroads and in commercial car and locomotive shops is shown in a separate table. (See table 12, p. 779.)

Details concerning employment, pay rolls, and man-hours worked during December on construction projects financed by Public Works Administration funds are given, by type of project, in table 10.

Table 10.—Employment and Pay Rolls on Construction Projects Financed from Public-Works Funds, Month Ending Dec. 15, 1935

Type of project	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number [1] employed	Weekly average				
Federal projects—Financed from N. I. R. A. funds						
All projects [2]	[2] 124,097	116,938	$9,400,053	13,281,140	$0.708	$10,969,334
Building construction [3]	14,995	12,553	995,891	1,213,530	.821	1,491,352
Forestry	103	94	3,540	6,483	.546	2,569
Naval vessels	28,584	28,152	3,357,248	4,042,236	.831	2,360,071
Public roads [4]	(5)	43,864	1,797,500	3,586,600	.501	2,950,000
Reclamation	15,087	13,786	1,488,473	2,070,462	.719	1,963,108
River, harbor, and flood control	17,549	14,969	1,497,305	1,935,566	.774	1,904,599
Streets and roads	2,246	1,987	108,224	212,530	.509	157,679
Water and sewerage	151	105	7,324	9,294	.788	7,711
Miscellaneous	1,518	1,428	144,548	204,439	.707	132,245
Non-Federal projects—Financed from N. I. R. A. funds						
All projects	96,920	80,194	$6,282,393	7,347,017	$0.855	$13,118,755
Building construction	46,521	38,224	3,310,343	3,495,223	.947	7,211,080
Railroad construction	2,555	2,051	87,716	136,786	.641	61,309
Streets and roads	9,862	7,888	522,287	725,120	.720	1,151,753
Water and sewerage	33,001	28,128	2,048,421	2,541,436	.806	3,935,101
Miscellaneous	4,981	3,903	313,626	448,452	.699	759,512
Non-Federal projects—Financed from E. R. A. A., 1935, funds [6]						
All projects	7,377	5,936	$332,051	513,138	$0.647	$1,377,930
Building construction	3,359	2,685	145,098	216,521	.670	570,398
Electrification	85	75	4,785	6,399	.748	15,851
Heavy engineering	144	107	9,532	9,365	1.018	20,130
Reclamation	228	178	10,303	16,359	.630	27,263
River, harbor, and flood control	24	19	1,124	2,144	.524	8,953
Streets and roads	1,079	967	46,836	74,273	.631	78,709
Water and sewerage	2,080	1,627	97,193	160,287	.606	625,957
Miscellaneous	378	278	17,180	27,790	.618	30,669

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.
[2] Includes weekly average for public roads.
[3] Includes a maximum of 1,826 and an average of 1,503 employees working on Federal housing projects financed from E. R. A. A., 1935, funds, who were paid $114,932 for 163,169 man-hours of labor. Material orders in the amount of $14,835 were placed for these projects. These data are also included in separate tables covering projects financed by The Works Program.
[4] Estimated by the Bureau of Public Roads.
[5] Not available; average number included in total.
[6] These data are also included in separate tables covering projects financed by The Works Program.

There were 26,774 fewer employees working on Federal projects in December than in November. Losses in employment occurred in five of the various types of projects. Employment on public-road projects showed the most pronounced drop. Small increases in the number of workers employed were reported for building construction, forestry, naval-vessel, and reclamation projects.

Compared with November, employment on non-Federal projects financed under the National Industrial Recovery Act decreased in December. All types of projects had fewer employees in December than in November. Of the total number of workers, more than four-fifths were employed on building-construction and water and sewerage projects.

In comparison with the previous month, the number of employees engaged on non-Federal projects financed under the Emergency Relief Appropriation Act of 1935, increased by 4,046 in December. Employment gains were registered for every type of project except street and road work. The greatest number of man-hours worked during the month—216,521—was accounted for by building-construction projects. Earnings per hour for all projects averaged 65 cents, but the range was from $1.02 on heavy engineering projects to 52 cents on river, harbor, and flood-control work.

Employment, pay rolls, and man-hours worked on construction projects financed by public-works funds in December are shown in table 11, by geographic divisions.

Table 11.—Employment and Pay Rolls on Construction Projects Financed from Public-Works Funds, Month Ending Dec. 15, 1935

Geographic division	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Weekly average				
	Federal projects—Financed from N. I. R. A. funds					
All divisions [2]	124,097	116,938	$9,400,053	13,281,140	$0.708	[3] $10,969,334
New England [2]	8,348	8,027	812,516	1,040,075	.781	382,785
Middle Atlantic [2]	19,721	18,578	1,863,368	2,280,750	.817	1,185,016
East North Central [2]	12,301	11,013	796,611	1,022,274	.779	774,490
West North Central	11,949	11,440	531,501	1,036,446	.513	363,455
South Atlantic	22,198	21,242	1,797,532	2,536,638	.709	1,560,622
East South Central	17,980	16,783	1,235,028	1,958,433	.631	1,601,967
West South Central	11,241	11,065	352,797	794,997	.444	124,718
Mountain	9,443	8,402	906,701	1,264,949	.717	826,644
Pacific	9,151	8,717	989,527	1,148,474	.862	1,084,823
Outside continental United States	1,765	1,671	114,472	198,104	.578	114,704
	Non-Federal projects—Financed from N. I. R. A. funds					
All divisions	96,920	80,194	$6,282,393	7,347,017	$0.855	$13,118,755
New England	6,089	4,974	342,975	425,619	.806	809,267
Middle Atlantic	23,577	19,533	1,899,495	1,901,813	.999	4,672,976
East North Central	16,904	14,127	1,097,989	1,183,473	.928	2,127,987
West North Central	13,376	10,977	827,087	1,056,896	.783	1,564,381
South Atlantic	7,453	5,977	369,152	524,336	.704	602,653
East South Central	3,776	2,963	157,740	252,080	.626	354,398
West South Central	9,785	8,368	457,688	730,932	.626	1,348,433
Mountain	3,978	3,308	277,153	337,238	.822	461,811
Pacific	11,586	9,642	834,739	906,677	.921	1,158,526
Outside continental United States	396	325	18,375	27,953	.658	18,322
	Non-Federal projects—Financed from E. R. A. A., 1935, funds [4]					
All divisions	7,377	5,936	$332,051	513,138	$0.647	$1,377,530
New England	890	736	39,734	73,342	.542	88,952
Middle Atlantic	672	515	48,248	46,569	1.036	368,944
East North Central	835	677	38,595	45,357	.851	187,463
West North Central	1,750	1,439	74,271	127,231	.584	217,698
South Atlantic	1,440	1,181	53,394	102,758	.520	287,318
East South Central	517	419	15,399	28,912	.533	56,628
West South Central	375	304	15,606	24,597	.634	46,616
Mountain	673	492	34,356	47,115	.729	73,371
Pacific	225	173	12,448	17,257	.721	50,940

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work. Includes weekly average for public-road projects.

[2] Includes data for wage earners employed on Federal housing projects financed from E. R. A. A., 1935, funds. These data are also included in separate table covering projects financed by The Works Program.

[3] Includes $2,950,000 estimated value of material orders placed for public road projects which cannot be charged to any specific geographic division.

[4] These data are also included in separate tables covering projects financed by The Works Program.

Employment, pay rolls, and man-hours worked during December in railway-car and locomotive shops on projects financed by the Public Works Administration fund are shown in table 12, by geographic divisions.

Table 12.—Employment and Pay Rolls in Railway-Car and Locomotive Shops on Work Financed From Public Works Administration Funds, December 1935

Geographic division	Wage earners		Monthly pay-roll disbursement	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Semi-monthly average				
All divisions	3,298	[2]	$345,818	495,836	$0.697	[2]
Railroad shops						
All divisions	2,400	2,337	$202,574	288,575	$0.702	$41,296
New England	451	451	54,868	73,619	.745	22,054
Middle Atlantic	595	582	29,533	46,222	.639	14,158
East North Central	334	304	16,623	23,657	.703	1,556
East South Central	1,020	1,000	101,550	145,077	.700	3,528
Commercial shops						
All divisions	898	[2]	$143,244	207,261	$0.691	[2]
Middle Atlantic	33	[2]	3,677	5,472	.672	[2]
East North Central	543	[2]	103,775	141,539	.733	[2]
West North Central	18	[2]	3,529	6,235	.566	[2]
South Atlantic	302	[2]	32,140	53,725	.598	[2]
East South Central	2	[2]	123	290	.424	[2]

[1] Maximum number employed during either semimonthly period by each shop.
[2] Data not available.

Compared with November, there was a decrease of 182 in the number of workers employed during December in railway-car and locomotive shops on work financed from Public Works Administration funds.

Monthly Trend

Employment, pay rolls, and man-hours worked at the site of projects financed from Public Works funds from the beginning of the program in July 1933 to December 1935 are given in table 13.

It will be noted that fewer workers were employed on projects financed from public-works funds in December than in any month since October 1933, when the program was just getting under way.

Since the beginning of the public-works program, pay-roll disbursements have been more than $595,000,000 and the value of material orders placed has been in excess of $1,102,000,000. Average earnings per hour have been 62 cents and 956,000,000 man-hours of employment have been provided at the construction site.

Table 13.—Employment and Pay Rolls, July 1933 to December 1935, Inclusive, on Projects Financed From Public-Works Funds

Year and month	Maximum number of wage earners [1]	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
July 1933 to December 1935, inclusive [2]	----------	$595,428,596	956,633,129	$0.622	$1,102,825,645
1933					
July	267	26,433	35,217	.751	(3)
August	4,719	131,937	206,990	.637	[3] 202,100
September	39,535	1,784,996	3,296,162	.542	1,628,537
October	146,747	6,353,835	12,029,751	.528	[4] 23,351,150
November	255,512	11,552,547	21,759,245	.531	24,568,577
December	300,758	13,091,587	24,391,546	.537	25,702,750
1934					
January	298,069	12,646,241	23,409,908	.540	24,206,352
February	311,381	14,348,094	26,544,346	.541	25,269,537
March	307,274	14,113,247	25,501,446	.553	[5] 69,766,559
April	382,220	18,785,405	32,937,649	.570	[5] 68,526,223
May	506,056	25,942,387	46,052,698	.563	[5] 50,468,427
June	610,752	33,808,429	59,873,309	.565	[5] 60,797,939
July	644,729	34,845,461	60,736,768	.574	[5] 53,377,997
August	629,907	36,480,027	61,925 300	.589	[5] 54,192,443
September	575,655	32,758,795	53,427,096	.613	[5] 50,878,000
October	527,883	30,263,279	47,910,342	.632	[5] 51,756,945
November	503,985	30,664,356	49,004,023	.625	55,044,382
December	410,236	23,655,422	36,238,781	.653	[5] 45,766,286
1935					
January	304,723	18,462,677	27,478,022	.672	[5] 30,746,857
February	272,273	16,896,475	25,144,558	.672	29,264,484
March	281,461	17,400,798	26,008,063	.669	27,276,566
April	333,045	20,939,741	31,387,712	.667	31,645,166
May	394,875	24,490,087	36,763,164	.667	[5] 36,893,840
June	414,306	25,386,962	38,800,178	.654	[5] 42,017,642
July	405,332	24,968,785	37,845,047	.660	41,936,424
August	394,509	25,292,656	37,133,989	.681	46,954,714
September [2]	344,520	22,772,317	32,478,773	.701	[5] 40,988,896
October [2]	308,632	21,692,439	30,358,351	.715	[6] 35,042,853
November [2]	271,111	19,512,866	26,317,564	.741	[6] 29,046,684
December [2]	231,692	16,360,315	21,637,131	.756	25,507,315

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work. Includes weekly average for public-road projects.
[2] Includes wage earners employed on projects under the jurisdiction of P. W. A. which are financed from E. R. A. A., 1935, funds. These data are also included in tables covering projects financed by The Works Program.
[3] Orders placed for materials during July and August 1933, with exception of public-road projects included in October.
[4] Includes orders placed for naval vessels prior to October 1933.
[5] Includes orders placed by railroads for new equipment.
[6] Revised.

The Works Program

BETWEEN the middle of November and the middle of December, employment was provided for 1,188,000 additional workers by the construction program financed by the Emergency Relief Act of 1935. In the aggregate, more than 2,561,000 workers were employed at the site of construction projects of this class in December.[1] This includes more than 9,200 employees working on Public Works Administration projects financed from funds provided by the Emergency Relief Appropriation Act of 1935. Pay rolls for December amounted to more than $102,000,000.

A detailed record of employment, pay rolls, and man-hours worked on projects financed by The Works Program in December is presented in table 14, by type of project.

[1] When December is referred to in this section, it may be accepted as meaning the month ending Dec. 15.

Table 14.—Employment and Pay Rolls on Projects Financed by The Works Program, December 1935

[Subject to revision]

Type of project	Wage earners: Maximum number employed [1]	Wage earners: Weekly average	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
Federal projects						
All projects	217,027	200,177	$10,195,537	22,160,371	$0.460	$7,258,162
Building construction	31,785	29,830	1,398,686	2,930,741	.477	704,015
Electrification	493	473	23,736	55,721	.426	13,486
Forestry	19,737	18,039	975,717	3,441,114	.284	519,905
Grade-crossing elimination	4,817	3,936	210,180	433,931	.484	460,209
Heavy engineering	61	49	4,118	6,581	.626	2,023
Hydro-electric power plants	1,065	961	21,752	94,076	.231	118,780
Plant, crop, and livestock conservation	23,220	21,081	879,190	1,875,037	.469	191,053
Professional, technical, and clerical	14,963	14,963	829,648	1,563,218	.531	39,479
Public roads	26,160	20,706	1,056,293	2,401,220	.440	1,116,282
Reclamation	37,726	37,622	1,202,106	2,749,014	.437	1,081,281
River, harbor, and flood control	40,858	37,024	2,811,450	4,850,020	.580	2,543,240
Streets and roads	7,530	7,247	368,250	831,660	.443	157,456
Water and sewerage	981	957	42,752	103,848	.412	15,940
Miscellaneous	7,631	7,289	371,659	824,190	.451	295,013
P. W. A. projects financed from E. R. A. A., 1935, funds [2]						
All projects	9,203	7,439	$446,783	676,307	$0.661	$1,392,765
Building construction	5,185	4,188	259,830	379,690	.684	585,233
Electrification	85	75	4,785	6,399	.748	15,851
Heavy engineering	144	107	9,532	9,365	1.018	29,130
Reclamation	228	178	10,303	16,359	.630	27,263
River, harbor, and flood control	24	19	1,124	2,144	.524	8,953
Streets and roads	1,079	967	46,836	74,273	.631	78,709
Water and sewerage	2,080	1,627	97,193	160,287	.606	625,957
Miscellaneous	378	278	17,180	27,790	.618	30,669
Projects operated by Works Progress Administration						
All projects	[3] [4] 2,335,610	.....	$91,552,345	201,799,051	$0.454	[5] $17,678,214
Conservation	140,748	.....	5,099,249	11,432,308	.446	1,190,113
Highway, road, and street	965,804	.....	34,963,017	83,117,682	.421	6,502,700
Housing	4,122	.....	269,340	384,274	.701	15,011
Professional, technical, and clerical	105,372	.....	6,019,488	9,594,915	.627	135,054
Public building	167,751	.....	8,155,969	14,077,140	.579	2,555,139
Publicly owned or operated utilities [6]	196,772	.....	7,545,088	15,967,935	.473	3,595,960
Recreational facilities [7]	327,008	.....	14,991,536	28,548,726	.525	2,016,883
Rural electrification and electric utilities	3,043	.....	127,662	240,826	.530	118,169
Sanitation and health	87,956	.....	3,052,044	8,392,425	.364	141,364
Sewing, canning, gardening, etc.	226,082	.....	6,347,801	18,663,172	.340	338,920
Transportation	41,469	.....	1,725,590	3,502,457	.493	412,813
Not elsewhere classified	94,984	.....	3,255,601	7,877,191	.413	656,088

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

[2] These data are also included in separate tables covering projects under the jurisdiction of the Public Works Administration.

[3] This total differs from the sum of the individual items since 25,501 employees worked on more than one type of project.

[4] Represents number of workers on the pay roll during month ending Dec. 15. During week ending Dec. 31 there were nearly 2,775,000 workers employed on projects operated by Works Progress Administration.

[5] Value of material orders placed during month ending Dec. 31, 1935.

[6] Exclusive of electric utilities.

[7] Exclusive of buildings.

On Federal projects alone jobs were provided for nearly 49,000 additional workers during the month interval. All types of Federal projects with the exception of water and sewerage construction, heavy engineering projects, and forestry work shared in the increase. The most substantial gains were registered on public-road construction and reclamation work.

An increase of approximately 1,133,000 workers in comparison with November is indicated in the number of workers employed on projects operated by the Works Progress Administration. Employment on each type of project showed pronounced gains. The largest increases occurred on highway, road, and street construction; recreational facility projects; and sewing, canning, and gardening work.

In December 9,200 workers were employed on Public Works Administration projects financed from funds provided by the Emergency Relief Appropriation Act of 1935. Of the total, more than half were employed on building-construction projects.

Employment, pay rolls, and man-hours worked in December on projects financed by The Works Program are shown in table 15, by geographic divisions.

Table 15.—Employment and Pay Rolls on Projects Financed by The Works Program, December 1935

[Subject to revision]

Geographic division	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Weekly average				
Federal projects						
All divisions [2]	217,027	200,177	$10,195,537	22,160,371	$0.460	$7,258,162
New England	12,742	11,689	804,813	1,563,879	.515	423,542
Middle Atlantic	28,099	26,892	1,762,092	3,028,818	.582	571,766
East North Central	23,404	20,842	1,208,969	2,434,750	.497	836,167
West North Central	27,814	25,430	1,237,577	2,589,173	.478	1,012,464
South Atlantic	35,610	33,342	1,303,625	3,750,009	.348	805,998
East South Central	9,618	8,646	316,076	878,274	.360	219,628
West South Central	17,096	15,573	484,308	1,548,590	.313	203,108
Mountain	24,683	22,902	1,478,963	2,794,185	.529	549,437
Pacific	24,792	23,053	1,383,302	2,994,875	.462	1,670,528
Outside continental United States	13,064	11,703	213,258	570,935	.374	195,436
P. W. A. projects financed from E. R. A. A. 1935 funds [3]						
All divisions	9,203	7,439	$446,783	676,307	$0.661	$1,392,765
New England	985	816	50,539	86,886	.582	93,609
Middle Atlantic	2,178	1,766	140,604	182,591	.770	368,944
East North Central	1,060	849	50,166	58,960	.851	197,641
West North Central	1,750	1,439	74,271	127,231	.584	217,698
South Atlantic	1,440	1,181	53,394	102,758	.520	287,318
East South Central	517	419	15,399	28,912	.533	56,628
West South Central	375	304	15,606	24,597	.634	46,616
Mountain	673	492	34,356	47,115	.729	73,371
Pacific	225	173	12,448	17,257	.721	50,940
Projects operated by the Works Progress Administration						
All divisions	[4] 2,335,610	----------	$91,552,345	201,799,051	$0.454	[5] $17,678,214
New England	137,649	----------	5,063,979	9,745,106	.520	----------
Middle Atlantic	582,969	----------	33,707,870	54,674,739	.617	----------
East North Central	552,578	----------	22,568,390	46,509,163	.485	----------
West North Central	251,653	----------	7,736,932	19,558,812	.396	----------
South Atlantic	223,449	----------	5,467,226	20,987,028	.261	----------
East South Central	157,209	----------	3,533,248	14,859,839	.238	----------
West South Central	170,914	----------	4,192,679	15,932,567	.263	----------
Mountain	96,972	----------	3,473,750	8,173,916	.425	----------
Pacific	162,217	----------	5,808,271	11,357,881	.511	----------

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

[2] Includes data for 105 wage earners and material orders placed valued at $770,088, for which a distribution by geographic division is not available.

[3] These data are also included in separate tables covering projects under the jurisdiction of the Public Works Administration.

[4] Represents number of workers on the pay roll during month ending Dec. 15. During week ending Dec. 31, there were nearly 2,775,000 workers employed on projects operated by Works Progress Administration.

[5] Value of material orders placed during month ending Dec. 31, 1935, for which a distribution by geographic division is not available.

Monthly Trend

The monthly trend of employment, pay rolls, and man-hours worked on projects financed by The Works Program from the beginning of the program in July 1935 to December 1935 are given in table 16.

Table 16.—Employment and Pay Rolls, July to December 1935, Inclusive, on Projects Financed by The Works Program

[Subject to revision]

Month and year	Maximum number employed [1]	Monthly pay-roll disbursements	Number of of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Federal projects				
July to December 1935, inclusive	----------	$30,077,743	65,911,609	$0.456	$32,116,942
July	5,131	276,839	603,318	.456	164,004
August	32,672	1,215,990	2,791,802	.436	1,684,347
September	76,524	3,754,773	7,815,795	.480	4,071,945
October	129,064	6,243,023	13,669,524	.457	9,723,568
November	168,234	8,391,581	18,870,799	.445	9,214,916
December	217,027	10,195,537	22,160,371	.460	7,258,162
	P. W. A. projects financed from E. R. A. A., 1935, funds [2]				
September to December 1935, inclusive	----------	$661,283	996,091	$0.664	$2,025,494
September	317	10,575	17,493	.605	28,573
October	1,184	54,380	78,928	.689	159,568
November	3,422	149,545	223,363	.670	444,588
December	9,203	446,783	676,307	.661	1,392,765
	Projects operated by Works Progress Administration				
August to December 1935, inclusive	----------	$170,911,331	367,589,041	$0.465	$46,042,303
August [3]	73,153	1,199,936	2,581,988	.465	3,202,136
September [3]	258,830	10,303,491	17,790,436	.579	2,089,324
October [3]	516,581	23,357,955	50,739,568	.460	8,236,283
November [3]	1,202,471	44,497,604	94,677,998	.470	14,836,346
December	2,335,610	91,552,345	201,799,051	.454	17,678,214

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.
[2] These data are also included in separare tables covering projects under the jurisdiction of the Public Works Administration.
[3] Revised.

Since the beginning of the program, pay-roll disbursements have amounted to over $200,000,000 and the value of material orders placed has exceeded $80,000,000. More than 434,000,000 man-hours of employment have been provided at the site of construction.

Emergency Work Program

With increased employment opportunities, both in industry and the construction program of the Works Progress Administration, the emergency-work program is declining in importance. For the week ended December 26, the emergency-work program provided employment for only 16,639 workers, a decrease of 83.4 percent in comparison with the corresponding week in November. Pay rolls decreased 80.2 percent, dropping from more than $1,210,000 for the week ending November 28 to less than $239,753 for the week ending December 26. (See table 17.)

Table 17.—Employment and Pay Rolls for Workers on Emergency-Work Program, Weeks ending Nov. 28 and Dec. 26, 1935

Geographic division	Number of employees, week ending—		Amount of pay roll, week ending—	
	Dec. 26	Nov. 28	Dec. 26	Nov. 28
All divisions	16,639	100,388	$239,753	$1,211,423
New England	8,428	45,960	122,784	574,835
Middle Atlantic	1,102	26,188	19,227	325,052
East North Central	1,022	7,116	16,086	80,754
West North Central	255	1,694	7,821	23,517
South Atlantic	2,704	6,802	32,224	67,055
East South Central	100	666	1,235	4,938
West South Central	1,093	4,388	9,507	30,634
Mountain	439	2,525	7,586	32,458
Pacific	1,496	5,049	23,283	72,180

The monthly record of the number employed and pay-roll disbursements of the Federal Emergency Relief Administration from the beginning of the program through December 1935 is given in table 18.

Table 18.—Employment and Pay Rolls for Workers on Emergency-Work Program, April 1934 to December 1935

Month	Number of employees	Amount of pay roll	Month	Number of employees	Amount of pay roll
1934			*1935*		
April	1,089,762	$38,416,747	January	[1] 2,443,673	[1] $70,806,598
May	[1] 1,361,537	[1] 43,680,775	February	[1] 2,432,772	[1] 62,795,267
June	[1] 1,504,571	[1] 42,423,990	March	[1] 2,368,993	[1] 61,825,268
July	[1] 1,725,266	[1] 47,352,865	April	[1] 2,275,872	[1] 61,321,053
August	1,924,066	54,914,792	May	[1] 2,196,421	[1] 63,530,180
September	1,950,108	50,288,868	June	2,021,060	54,382,876
October	1,996,822	53,901,325	July	1,928,772	53,136,833
November	2,159,038	62,833,046	August	[1] 1,411,462	[1] 38,989,150
December	[1] 2,299,349	[1] 61,925,339	September	[1] 889,231	[1] 21,184,250
			October	[1] 644,972	17,791,923
			November	346,470	8,258,626
			December	68,558	1,844,813

[1] Revised.

The decline in employment and pay rolls on the emergency-work program continued in December. According to preliminary figures, the estimated employment for the month was 68,000. This does not mean, however, that during any given week, this total was reached. Because of the fact that a limit is placed on the earnings of employees, not more than 70 percent of this number are working at any one time.

Emergency Conservation Work

THERE were 506,605 workers engaged in emergency conservation work in December. Compared with the previous month, this represents a loss of 37,353 in the number of workers employed. (See table 19.) All classes of workers shared in the decrease.

Table 19.—Employment and Pay Rolls in Emergency Conservation Work, November and December 1935

Group	Number of employees		Amount of pay rolls	
	December	November	December	November
All groups	506,605	543,958	$21,905,516	$23,957,751
Enrolled personnel	453,152	480,140	14,151,942	14,994,771
Reserve officers	9,264	9,607	1,940,881	2,013,114
Educational advisers [1]	2,198	2,227	376,828	381,297
Supervisory and technical [2]	[3] 41,991	[4] 51,984	[3] 5,435,865	[4] 6,568,569

[1] Included in executive service table.
[2] Includes carpenters, electricians, and laborers.
[3] 38,854 employees and pay roll of $5,173,647 included in executive service table.
[4] 44,394 employees and pay roll of $6,037,214 included in executive service table.

The employment and pay-roll data for emergency conservation workers are collected by the Bureau of Labor Statistics from the War Department, the Department of Agriculture, the Department of Commerce, the Treasury Department, and the Department of the Interior. The monthly pay of the enrolled personnel is distributed as follows: 5 percent are paid $45; 8 percent, $36; and the remaining 87 percent, $30. The enrolled men, in addition to their pay, are provided with board, clothing, and medical services.

Construction Projects Financed by the Reconstruction Finance Corporation

THERE were 7,786 wage earners employed at the site of construction projects financed by the Reconstruction Finance Corporation during December. Compared with the previous month, this was a decrease of 20.5 percent. Pay-roll disbursements of $869,000 were $132,000 less than in November.

Statistics concerning employment, pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation during December are given in table 20, by type of project.

Table 20.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation by Type of Project, December 1935

Type of project	Number of wage earners	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed
All projects	7,786	$869,459	1,160,845	$0.749	$1,383,293
Bridges	1,933	206,603	210,871	.980	236,070
Building construction	76	8,628	10,388	.831	13,671
Reclamation	61	4,485	7,758	.578	401
Water and sewerage	4,605	542,987	769,356	.706	1,111,468
Miscellaneous	1,111	106,756	162,472	.657	21,683

The number of employees, the amounts of pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation in December are shown in table 21, by geographic divisions.

Table 21.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation by Geographic Divisions, December 1935

Geographic division	Number of wage earners	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
All divisions	7,786	$869,459	1,160,845	$0.749	$1,383,293
East North Central	230	19,599	17,536	1.118	26,940
West North Central	19	2,412	3,716	.649	0
West South Central	147	15,924	18,538	.859	0
Mountain	61	4,485	7,758	.578	401
Pacific	7,329	827,039	1,113,297	.743	1,355,952

Construction Projects Financed from Regular Governmental Appropriations

EMPLOYMENT on projects financed from regular governmental appropriations declined during December. Compared with the previous month, the decrease in employment was 11.2 percent. Pay-roll disbursements during the month amounted to $3,708,000, a decrease of 9.1 percent compared with November.

Whenever a construction contract is awarded, or force-account work is started, by a department or agency of the Federal Government, the Bureau of Labor Statistics is immediately notified, on forms supplied by the Bureau, of the name and address of the contractor, the amount of the contract, and the type of work to be performed. Blanks are then mailed by the Bureau to the contractor or Government agency doing the work. These reports are returned to the Bureau and show the number of men on pay rolls, the amounts disbursed for pay, the number of man-hours worked on the project, and the value of the different types of materials for which orders were placed during the month.

The following tables present data concerning construction projects on which work has started since July 1, 1934. The Bureau does not have statistics covering projects which were under way previous to that date.

Detailed statistics of employment, pay rolls, and man-hours worked in December on construction projects financed by regular governmental appropriations are given in table 22, by type of project.

Table 22.—Employment on Construction Projects Financed from Regular Governmental Appropriations, by Type of Project, December 1935

Type of project	Number of wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Weekly average				
All projects	[2] 56,780	53,415	$3,707,963	5,980,118	$0.620	$6,155,840
Building construction	7,105	5,735	433,626	576,073	.753	940,972
Electrification	15	9	841	834	1.008	940
Naval vessels	9,815	9,600	1,099,972	1,321,991	.832	2,320,685
Public roads [3]	(4)	24,934	1,334,547	2,313,987	.577	2,190,216
Reclamation	422	343	39,736	52,497	.757	11,722
River, harbor, and flood control	10,712	9,439	637,874	1,365,469	.467	578,009
Streets and roads	2,839	2,513	102,441	261,272	.392	75,646
Water and sewerage	10	9	372	570	.653	231
Miscellaneous	928	833	58,554	87,425	.670	37,419

[1] Maximum number employed any 1 week of the month by each contractor and Government agency doing force-account work.
[2] Includes weekly average for public roads.
[3] Estimated by the Bureau of Public Roads.
[4] Not available; average number included in total.

Statistics of employment, pay rolls, and man-hours worked during December on construction projects financed from regular governmental appropriations are presented in table 23, by geographic divisions.

Table 23.—Employment on Construction Projects Financed from Regular Governmental Appropriations, by Geographic Divisions, December 1935

Geographic division	Number of wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed [1]	Weekly average				
All divisions	56,780	53,415	$3,707,963	5,980,118	$0.620	[2] $6,155,840
New England	6,179	5,988	563,419	749,573	.752	928,976
Middle Atlantic	7,714	7,299	683,179	882,036	.775	810,093
East North Central	5,150	4,873	252,422	390,632	.646	133,034
West North Central	5,301	4,962	234,385	460,849	.509	136,000
South Atlantic	6,801	6,308	420,391	696,204	.604	710,373
East South Central	4,719	4,517	221,919	556,704	.399	148,794
West South Central	10,047	8,861	426,882	944,098	.452	529,651
Mountain	6,279	6,193	474,229	707,547	.670	56,773
Pacific	4,112	3,983	400,307	532,889	.751	487,323
Outside continental United States	478	431	30,830	59,586	.517	24,607

[1] Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work. Includes weekly average for public roads.
[2] Includes $2,190,216 estimated value of orders placed for public-road projects which cannot be charged to any specific geographic division.

State-Road Projects

EMPLOYMENT and pay-roll disbursements in the construction and maintenance of State roads declined during December. Compared with November, the number of workers employed on new road construction decreased 16.8 percent, and a decrease of 12.5 percent is shown in the number engaged in maintenance work. Of the 148,736 workers engaged on these projects in December, 18.2 percent were employed in the construction of new roads and 81.8 percent in maintenance work.

Statistics concerning employment and pay rolls in building and maintaining State roads in November and December are presented in table 26, by geographic divisions.

Table 26.—Employment on Construction and Maintenance of State Roads by Geographic Divisions, November and December 1935 [1]

Geographic division	New roads				Maintenance			
	Number of employees		Amount of pay roll		Number of employees		Amount of pay roll	
	December	November	December	November	December	November	December	November
All divisions	27,046	32,487	$1,053,209	$1,379,386	121,690	139,138	$5,180,169	$5,776,639
New England	9,356	11,618	394,154	540,115	7,971	8,665	431,991	558,145
Middle Atlantic	1,037	1,282	64,629	81,005	29,474	32,740	1,061,936	1,175,611
East North Central	1,516	2,899	72,454	158,062	19,338	20,044	813,177	853,741
West North Central	2,391	2,086	74,404	55,914	10,069	16,399	504,693	608,176
South Atlantic	6,819	7,347	126,519	138,754	23,436	27,487	737,847	871,857
East South Central	2,216	1,947	82,292	92,798	9,108	10,073	335,371	335,058
West South Central	1,200	2,389	45,444	92,102	12,452	13,101	559,867	590,082
Mountain	966	853	61,134	51,198	5,143	5,423	320,936	331,863
Pacific	1,545	2,066	132,179	169,438	4,556	5,040	404,474	441,469
Outside continental United States					143	166	9,877	10,637

[1] Excluding employment furnished by projects financed from public-works funds.

BUILDING OPERATIONS

Summary of Building Construction Reports for January 1936

A MODERATE improvement was registered in building construction activity during January. The value of building construction for which permits were issued in January in the principal cities of the United States totaled $77,668,000, a gain of nearly 3 percent compared with the $75,603,000 reported by the same cities in December. Substantial increases occurred in new residential construction and in additions, alterations, and repairs to existing buildings. A loss, however, was shown in January in the value of permits issued for new nonresidential buildings.

Compared with a year ago, however, there was a pronounced gain in building activity in January. The value of construction permits issued in January 1936 was 122.5 percent greater than in the corresponding month of 1935. Substantial increases occurred in all classes of construction.

Comparisons, January 1936 with December 1935

A SUMMARY of building construction in 790 identical cities for January 1936 and December 1935 is given in table 1.

Table 1.—Summary of Building Construction in 790 Identical Cities, December 1935 and January 1936

Class of construction	Number of buildings			Estimated cost		
	January 1936	December 1935	Percentage change	January 1936	December 1935	Percentage change
All construction	23,192	25,428	−9.8	$77,668,197	$75,602,939	+2.7
New residential buildings	3,831	3,844	−.3	30,422,387	23,632,423	+28.7
New nonresidential buildings	3,669	4,583	−19.9	28,869,448	36,010,115	−19.8
Additions, alterations, and repairs	15,692	17,001	−7.7	18,376,362	15,960,401	+15.1

Measured by the value of permits issued, the estimated cost of building construction in January was $2,065,000 greater than in December. A gain of $9,206,000 was shown in the value of construction permits issued for new residential buildings and for additions, alterations, and repairs, but a loss of $7,141,000 was indicated for new nonresidential buildings. The number of buildings for which permits were issued in January showed a decrease of 9.8 percent compared with December. All classes of construction shared in the decrease.

The estimated cost of housekeeping dwellings and the number of families provided for by types of dwellings for which permits were issued in December 1935 and January 1936 are shown in table 2.

Table 2.—Summary of Estimated Cost of Housekeeping Dwellings and of the Number of Families Provided for in 790 Identical Cities, December 1935 and January 1936

Kind of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	January 1936	December 1935	Percentage change	January 1936	December 1935	Percentage change
All types	$29,876,387	$22,999,903	+29.9	6,787	5,538	+22.6
1-family	15,086,177	15,971,346	−5.5	3,526	3,538	−.3
2-family [1]	970,267	753,507	+28.8	348	297	+17.2
Multifamily [2]	13,819,943	6,275,050	+120.2	2,913	1,703	+71.1

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

In comparison with December 1935 the estimated cost of housekeeping dwellings as indicated by permits issued in January 1936 increased 29.9 percent. Increases in expenditures were shown for two-family and multifamily dwellings, but a loss was indicated in one-family dwellings. The number of families provided for by all types of dwellings increased 22.6 percent. Gains were registered by two-family and multifamily dwelling units. A loss, however, was shown in the number of families provided for by one-family dwelling units.

Comparisons, January 1936 with January 1935

A SUMMARY of building construction in 797 identical cities for January 1935 and January 1936 is given in table 3.

Table 3.—Summary of Building Construction in 797 Identical Cities, January 1935 and January 1936

Class of construction	Number of buildings			Estimated cost		
	January 1936	January 1935	Percentage change	January 1936	January 1935	Percentage change
All construction	23,228	20,170	+15.2	$77,702,744	$34,924,955	+122.5
New residential buildings	3,841	1,659	+131.5	30,433,887	9,162,760	+232.1
New nonresidential buildings	3,671	3,043	+20.6	28,884,268	13,482,765	+114.2
Additions, alterations, and repairs	15,716	15,468	+1.6	18,384,589	12,279,430	+49.7

The number of buildings for which permits were issued in January 1936 was 23,228, a gain of 15.2 percent compared with the 20,170 reported in January 1935. The most marked gain was registered in the number of new residential buildings but increases were also shown

in the number of new nonresidential buildings and in additions, alterations, and repairs to existing buildings. Measured by the value of permits issued, the increase in January 1936 over January 1935 in estimated expenditures for new residential buildings was $21,271,000; for new nonresidential buildings the gain was $15,402,000; and for additions, alterations, and repairs the increase was $6,105,000.

The estimated cost of housekeeping dwellings and the number of families provided for in such dwellings is given for the months of January 1935 and January 1936, in summary form, in table 4.

Table 4.—Summary of Estimated Cost of Housekeeping Dwellings and of the Number of Families Provided for in 797 Identical Cities, January 1935 and January 1936

Kind of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	January 1936	January 1935	Percentage change	January 1936	January 1935	Percentage change
All types	$29,882,887	$9,073,390	+229.3	6,789	2,554	+165.8
1-family	15,087,177	5,808,512	+159.7	3,525	1,525	−131.1
2-family [1]	970,267	574,818	+68.8	348	180	+93.3
Multifamily [2]	13,825,443	2,690,060	+413.9	2,916	849	+243.5

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

A 165.8 percent increase was registered in the number of families provided for in new dwellings in January 1936 compared with January 1935. The estimated cost of housekeeping dwellings for which permits were issued in January 1936 was $20,809,000 greater than in the corresponding month of 1935. Increases in expenditures were indicated for all types of family-dwelling units.

Important Building Projects

Permits were issued during January for the following important building projects: In Westfield, Mass., for institutional buildings to cost $900,000; in New York City—in the Borough of the Bronx for apartment houses to cost $2,500,000 and in the Borough of Manhattan for apartment houses to cost nearly $1,500,000; in Rochester, N. Y., for school buildings to cost over $760,000; in Indianapolis, Ind., for a factory building to cost $400,000; in Detroit, Mich., for factory buildings to cost nearly $300,000; in Cincinnati, Ohio, for commercial buildings to cost nearly $300,000; in Toledo, Ohio, for school buildings to cost nearly $1,200,000; in Savannah, Ga., for a school building to cost $850,000; in Chattanooga, Tenn., for school buildings to cost over $500,000; in Nashville, Tenn., for stores to cost nearly $250,000; in Dallas, Tex., for commercial buildings to cost nearly $650,000; and in Fort Worth, Tex., for store buildings to cost over $400,000. Work

was started on a suburban resettlement project in Cincinnati, Ohio, to cost $7,250,000. This project is planned to house approximately 1,000 families. Contracts were awarded for naval air station quarters, hangars, and storehouses at Pensacola, Fla., to cost over $2,000,000.

Building Construction in December 1935: Revised Figures

DETAILED figures on building construction, as compiled by the Bureau of Labor Statistics, for the month of December 1935, are presented in this article. The data are the same as published in the Building Construction pamphlet for December, except for certain minor revisions and corrections.

Building Construction in Principal Cities

REPORTS from the principal cities of the United States indicate that the value of the buildings for which permits were issued during the month of December totaled $76,020,923, a decrease of 3.0 percent in comparison with the November total of $78,412,145. By contrast, for the 6 preceding years (1929–34), the decrease at this season averaged approximately 13 percent.

The decline in December was accounted for chiefly by the sharp reduction of 23.7 percent in the value of permits issued for new residential construction. (See table 1.) A decline of 9.3 percent in the valuation of permits issued for additions, alterations, and repairs to existing structures, however, was a contributing factor. These losses were largely offset by a rise of 21.9 percent in new nonresidential construction.

Compared with the corresponding month of 1934, all classes of building-construction activity showed impressive gains. For home building the increase amounted to 224 percent, for new nonresidential construction 183 percent, and for additions, alterations, and repairs 57 percent. The value of all building for which permits were issued during the month was 150 percent greater than the total for December 1934.

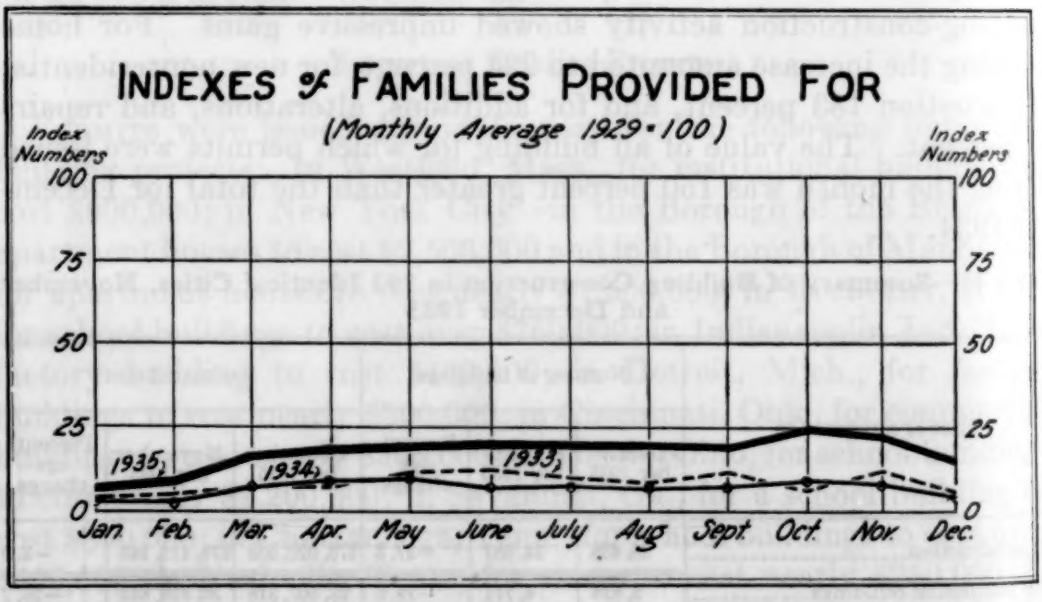
Table 1.—Summary of Building Construction in 793 Identical Cities, November and December 1935

Class of construction	Number of buildings			Estimated cost		
	December 1935	November 1935	Percentage change	December 1935	November 1935	Percentage change
All construction	25,438	34,987	−27.3	$76,020,923	$78,412,145	−3.0
New residential buildings	3,834	4,771	−19.6	23,507,818	30,816,843	−23.7
New nonresidential buildings	4,577	6,997	−34.6	36,535,188	29,971,247	+21.9
Additions, alterations, and repairs	17,027	23,219	−26.7	15,977,917	17,624,055	−9.3

December building operations brought the total value of construction permits issued during 1935 in the cities for which information is available to approximately $827,588,000—an increase of 72 percent over the 1934 total of $481,530,000. Living quarters will be provided for 74,833 families in the residential buildings for which permits were issued during the year, an increase of 157 percent compared with the 29,140 families for which dwellings were provided in 1934.

The information in this report is based on data received by the Bureau of Labor Statistics from 793 identical cities having a population of 10,000 or over. The data are collected by local building officials on forms mailed by the Bureau, except in the States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, where State agencies collect and forward reports to the Bureau. The cost figures shown in the accompanying tables are estimates made by prospective builders on applying for permits to build. No land costs are included. Only building projects within the corporate limits of the 793 cities reporting to the Bureau are included in the study. The figures, however, do include the value of contracts awarded for Federal and State buildings in the cities covered. In December 1935 the value of Federal and State buildings amounted to $7,160,680, as compared with $7,737,017 in November and $2,210,742 in December 1934.

Index numbers of indicated expenditures for each of the different types of building construction and of the number of family-dwelling units provided are given in table 2. The monthly trends for the the major classes of building construction and for the number of family-dwelling units provided during 1933, 1934, and 1935 are shown graphically by the accompanying charts.



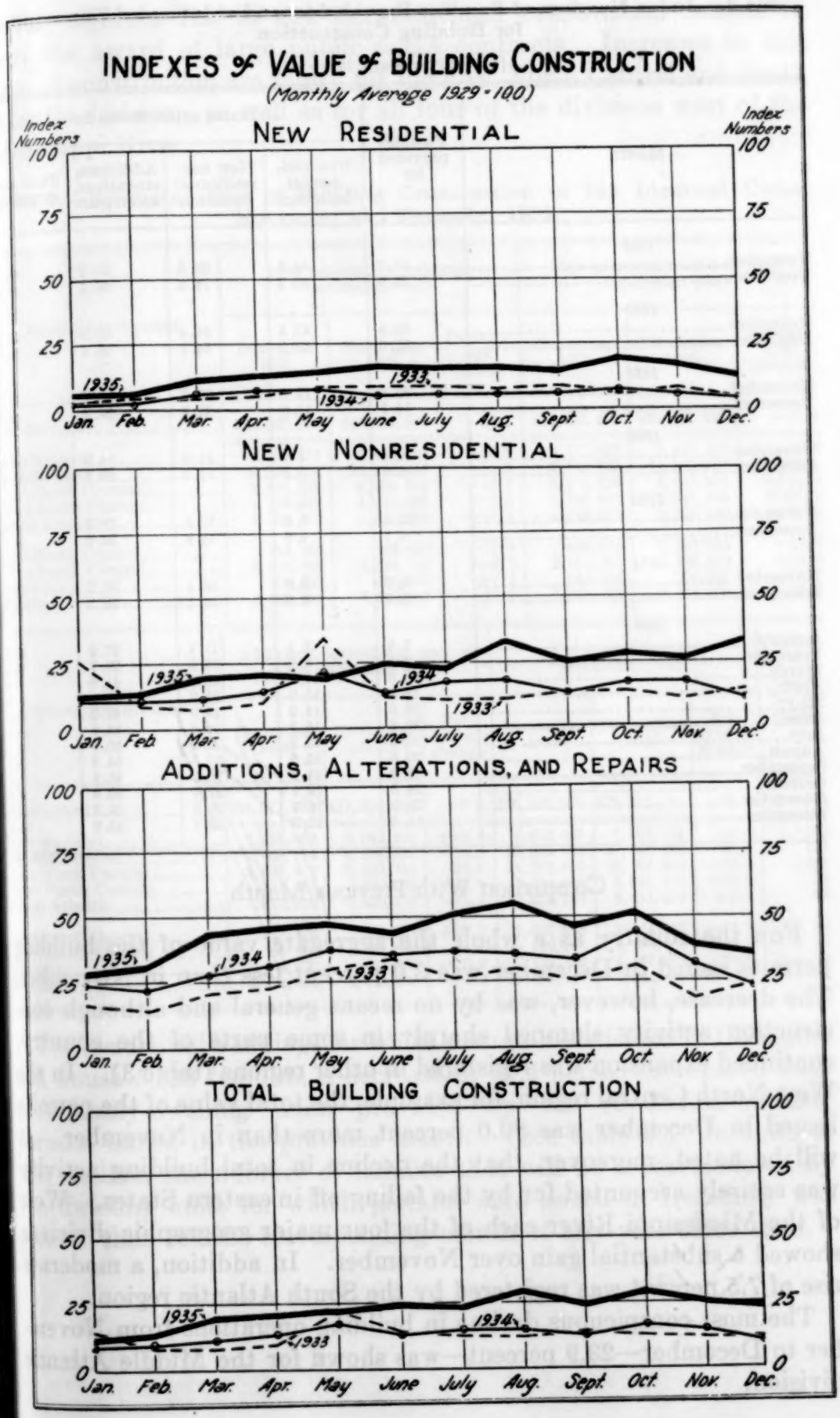

INDEXES of VALUE of BUILDING CONSTRUCTION
(Monthly Average 1929-100)
NEW RESIDENTIAL
Index Numbers
100
75
50
25
0
1935
1933
1934
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.
NEW NONRESIDENTIAL
ADDITIONS, ALTERATIONS, AND REPAIRS
TOTAL BUILDING CONSTRUCTION

Table 2.—Index Numbers of Families Provided for and of Indicated Expenditures for Building Construction

[Monthly average, 1929=100]

Month	Families provided for	Indicated expenditures for—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total construction
1929					
November	51.7	44.8	89.6	95.2	68.1
December	35.9	30.2	74.3	66.1	51.7
1930					
November	52.9	42.5	54.4	37.8	46.3
December	45.0	37.6	64.3	53.5	50.1
1931					
November	23.8	19.0	32.7	33.6	26.2
December	14.7	11.8	32.9	27.3	22.3
1932					
November	6.4	4.9	21.8	14.9	13.0
December	5.0	3.6	17.3	13.7	10.5
1933					
November	12.1	8.6	10.3	18.3	11.0
December	6.7	4.6	13.8	23.5	11.1
1934					
November	8.2	5.9	16.1	31.2	13.7
December	5.4	4.0	10.2	23.2	9.3
1935					
January	7.3	5.1	11.1	27.9	10.9
February	8.5	5.6	13.9	29.7	12.3
March	16.6	11.4	18.6	41.6	19.2
April	18.9	13.0	21.2	45.5	21.6
May	20.0	14.2	19.9	47.2	22.0
June	20.8	16.1	24.4	43.6	24.3
July	20.6	15.3	22.2	50.9	24.1
August	20.6	15.5	32.5	54.8	28.5
September	19.0	14.2	25.2	46.8	24.0
October	24.5	19.1	27.4	50.9	28.2
November	22.6	16.9	26.8	39.3	25.0
December	15.5	12.9	32.7	35.6	24.2

Comparison With Previous Month

For the country as a whole the aggregate value of the building permits issued in December was 3.0 percent less than in November. The decrease, however, was by no means general and although construction activity slumped sharply in some parts of the country, continued expansion was registered in other regions (table 3). In the West North Central region, for example, the total value of the permits issued in December was 89.0 percent more than in November. It will be noted, moreover, that the decline in total building activity was entirely accounted for by the falling off in eastern States. West of the Mississippi River each of the four major geographic divisions showed a substantial gain over November. In addition, a moderate rise of 7.5 percent was registered by the South Atlantic region.

The most conspicuous decline in building operations from November to December—23.9 percent—was shown for the Middle Atlantic division.

The vigorous rise in new nonresidential construction reflects in part the award of large public-works contracts. Increases in this class of construction are shown for the East North Central and South Atlantic divisions, as well as for all four of the divisions west of the Mississippi River.

Table 3.—Estimated Cost of Building Construction in 793 Identical Cities, November and December 1935

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	December 1935	November 1935	Percentage change	December 1935	November 1935	Percentage change
All divisions	$23,507,818	$30,816,843	−23.7	$36,535,188	$29,971,247	+21.9
New England	1,891,375	2,425,365	−22.0	3,371,630	3,432,249	−1.8
Middle Atlantic	8,004,314	10,812,510	−26.0	8,183,233	11,069,817	−26.1
East North Central	3,038,358	6,959,810	−56.3	6,163,025	4,047,253	+52.3
West North Central	1,320,997	1,440,086	−8.3	4,728,851	1,591,689	+197.1
South Atlantic	2,704,772	3,162,288	−14.5	4,849,070	2,728,020	+77.8
East South Central	164,585	289,920	−43.2	1,058,543	1,333,234	−20.6
West South Central	1,408,083	1,325,784	+6.2	2,962,035	2,286,579	+29.5
Mountain	470,039	438,533	+7.2	644,370	276,897	+132.7
Pacific	4,505,295	3,962,547	+13.7	4,574,431	3,205,509	+42.7

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	December 1935	November 1935	Percentage change	December 1935	November 1935	Percentage change	
All divisions	$15,977,917	$17,624,055	−9.3	$76,020,923	$78,412,145	−3.0	793
New England	2,386,662	2,049,519	+16.4	7,649,667	7,907,133	−3.3	113
Middle Atlantic	4,438,184	5,207,925	−14.8	20,625,731	27,090,252	−23.9	174
East North Central	2,507,472	3,199,741	−21.6	11,708,855	14,206,804	−17.6	187
West North Central	1,361,147	890,198	+52.9	7,410,995	3,921,973	+89.0	73
South Atlantic	1,458,910	2,490,771	−41.4	9,012,752	8,381,079	+7.5	78
East South Central	675,470	531,013	+27.2	1,898,598	2,154,167	−11.9	34
West South Central	598,886	678,001	−11.7	4,969,004	4,290,364	+15.8	48
Mountain	429,691	482,502	−10.9	1,544,100	1,197,932	+28.9	24
Pacific	2,121,495	2,094,385	+1.3	11,201,221	9,262,441	+20.9	62

The residential buildings for which permits were issued in December will house 5,523 families, a decrease of 31.2 percent compared with the family-dwelling units provided by the residential-building permits issued in the previous month. (See table 4.) In spite of this decline, the number of families that will be accommodated by the dwelling units for which permits were issued in December was greater than for the corresponding month of any year since 1930.

Table 4.—Estimated Cost and Number of Family-Dwelling Units Provided in 793 Identical Cities, November and December 1935

Kind of dwelling	Number of families provided for in new dwellings			Estimated cost		
	December 1935	November 1935	Percentage change	December 1935	November 1935	Percentage change
All types	5,523	8,030	−31.2	$22,875,298	$30,751,843	−25.6
1-family	3,533	4,325	−18.3	15,854,491	18,513,105	−14.4
2-family [1]	289	431	−32.9	744,257	1,222,568	−39.1
Multifamily [2]	1,701	3,274	−48.0	6,276,550	11,016,170	−43.0

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Of the 5,523 family-dwelling units that will be provided by the residential-building permits issued in December, about 70 percent (3,822) were one- and two-family residences and 30.0 percent (1,701) were multifamily dwellings. Compared with the previous month, the number of dwelling units that will be provided by small residences decreased 18.0 percent and the number of apartment-dwelling units 48.0 percent. The sharp decrease in apartments in December is explained largely by the fact that in November the contract for the West Side housing project in Cleveland, Ohio, was awarded by the Public Works Administration.

Comparison With Year Ago

ALTHOUGH below the level of the previous month, the rate of building activity in December was still far ahead of the corresponding month of 1934 (table 6). All types of building construction in virtually all parts of the country shared in the improvement. Residential construction, with an increase of 224.4 percent, showed the most impressive gain. New nonresidential construction in December, however, was 183.0 percent higher than in December 1934, and an increase of more than 50.0 percent was shown in the value of permits issued for additions, alterations, and repairs to existing structures.

Table 5.—Estimated Cost of Building Construction in 779 Identical Cities, December 1934 and December 1935

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	December 1935	December 1934	Percentage change	December 1935	December 1934	Percentage change
All divisions	$23,420,920	$7,220,025	+224.4	$35,932,158	$12,710,086	+182.7
New England	1,891,375	966,710	+95.7	3,371,630	1,041,684	+223.7
Middle Atlantic	8,004,314	2,232,297	+258.6	8,196,483	2,579,770	+217.7
East North Central	2,997,158	837,825	+257.7	5,562,775	3,205,528	+73.5
West North Central	1,311,297	324,065	+304.6	4,728,446	974,653	+385.1
South Atlantic	2,704,772	1,042,530	+159.4	4,849,070	1,409,587	+244.0
East South Central	162,085	60,355	+168.6	1,050,543	570,637	+84.1
West South Central	1,389,585	535,230	+159.6	2,958,875	733,502	+303.4
Mountain	468,539	76,675	+511.1	645,180	182,862	+252.8
Pacific	4,491,795	1,144,338	+292.5	4,569,156	2,011,863	+127.1

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	December 1935	December 1934	Percentage change	December 1935	December 1934	Percentage change	
All divisions	$15,954,146	$10,148,496	+57.2	$75,307,224	$30,078,607	+150.4	779
New England	2,386,662	1,307,352	+82.6	7,649,667	3,315,746	+130.7	113
Middle Atlantic	4,452,319	2,898,553	+53.6	20,653,116	7,710,620	+167.9	174
East North Central	2,498,085	1,384,691	+80.4	11,058,018	5,428,044	+103.7	181
West North Central	1,360,447	509,539	+167.0	7,400,190	1,808,257	+309.2	71
South Atlantic	1,458,910	1,238,852	+17.8	9,012,752	3,690,969	+144.2	78
East South Central	672,871	393,949	+70.8	1,885,499	1,024,941	+84.0	32
West South Central	578,499	587,022	−1.5	4,926,959	1,855,754	+165.5	45
Mountain	427,753	241,013	+77.5	1,541,472	500,550	+208.0	24
Pacific	2,118,600	1,587,525	+33.5	11,179,551	4,743,726	+135.7	61

The gains over December 1934 in the aggregate value of the building permits issued ranged from 84.0 percent in the East South Central division to 309.0 percent in the West North Central division. Still more significant was the remarkable rise in residential-building awards. In all of the major geographic divisions except New England, the volume of new residential building in December was more than double that of a year ago. A sixfold rise, for example, was shown for this branch of construction in the Mountain States, a fourfold gain in the West North Central division, while the Middle Atlantic, East North Central, and Pacific regions reported gains of from 258.0 percent to 293.0 percent. Even New England, where residential building has been lagging considerably behind other parts of the country, home building in December registered an increase of 95.7 percent over the corresponding month of 1934.

All sections of the country likewise show marked gains over December 1934 in new nonresidential construction. In this branch the increases ranged from 73.5 percent in the East North Central division to 303.4 percent in the West South Central. The value of permits

issued for additions, alterations, and repairs to existing structures in December 1935 was substantially higher than in the same month of the preceding year in all sections of the country except the West South Central division.

The number and estimated cost of dwelling units provided in new housekeeping dwellings for which permits were issued in 779 identical cities in December 1934 and December 1935 are shown in table 6, by type of dwelling.

Table 6.—Estimated Cost and Number of Family-Dwelling Units Provided in 779 Identical Cities, December 1934 and December 1935

Kind of dwelling	Number of families provided for in new dwellings			Estimated cost		
	December 1935	December 1934	Percentage change	December 1935	December 1934	Percentage change
All types	5,494	1,907	+188.1	$22,788,400	$7,141,025	+219.1
1-family	3,504	1,371	+155.6	15,769,908	5,607,800	+181.2
2-family [1]	286	152	+88.2	739,442	487,675	+51.6
Multifamily [2]	1,704	384	+343.8	6,279,050	1,045,550	+500.5

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Pronounced increases over December 1934 were shown in the number of family-dwelling units provided in one- and two-family dwellings and in apartment houses. The largest increase was shown in the dwelling units provided in apartment houses.

Construction From Public Funds

IN COMPARISON with the previous month, the value of Federal construction projects for which contracts were awarded and force-account work approved in December decreased slightly. Pronounced gains, however, occurred in building construction, grade-crossing elimination, and water and sewerage work. Large decreases occurred in naval-vessel construction and reclamation work.

Data concerning the value of contracts awarded and force-account work approved during November and December 1935, for construction projects financed from the Public Works Administration fund, from The Works Program fund, and from regular governmental appropriations are shown in table 7, by type of construction.

Among the more important construction projects to be financed from Federal funds for which contracts were awarded during December were: For an overpass at Seventy-ninth Street, New York City, to cost over $1,600,000; for State institutional buildings at Howard, R. I., to cost over $1,100,000; for sewers and sewage disposal system at Niagara Falls, N. Y., to cost nearly $800,000; for a dock terminal in Mobile, Ala., to cost over $500,000; for the waterworks in Bristol, Tenn., to cost nearly $600,000.

Table 7.—Value of Contracts Awarded and Force-Account Work Started on Construction and White-Collar Projects Financed from Federal Funds [1]

Type of construction	Total		The Works Program [2]		Regular governmental appropriations	
	December 1935	November 1935	December 1935	November 1935	December 1935	November 1935
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
All types	[3] 233,145,018	[4] 238,710,734	35,397,058	[3] 79,180,644	20,179,182	[3] 94,476,601
Building	[3] 124,538,055	[4] 38,230,754	1,275,117	[3] 1,016,823	1,190,150	2,323,149
Electrification	1,752,193	[3] 1,973,946	712,950	[3] 1,771,686	9,144	[3] 115,016
Forestry	0	0	0	0	----------	----------
Heavy engineering	2,268,467	281,601	0	91,777	----------	----------
Hydroelectric power plants	482,398	0	382,800	0	----------	----------
Naval vessels	1,218,062	73,292,600	----------	----------	1,212,800	73,292,600
Plant, crop, and livestock control	0	1,354,700	0	1,354,700	----------	----------
Public roads:						
Roads	37,253,607	[3] 41,887,308	17,900,830	[3] 22,156,291	16,975,367	16,892,020
Grade-crossing elimination	11,088,708	[3] 7,461,887	11,088,708	[3] 7,461,887	----------	----------
Railroad construction and repair	457,001	3,300,000	----------	----------	----------	----------
Reclamation	3,356,053	39,321,353	2,549,796	38,133,061	143,400	154,100
River, harbor, and flood control	3,061,446	[3] 9,245,447	156,479	[3] 5,243,236	535,205	[3] 1,488,523
Streets and roads [5]	16,749,431	[3] 8,811,774	258,999	1,005,000	3,350	2,223
Water and sewerage systems	28,089,841	[3] 11,813,642	0	9,500	48,489	39,649
White-collar projects	1,065,254	[3] 645,783	1,065,254	[3] 645,783	----------	----------
Miscellaneous	1,764,502	[3] 1,089,939	6,125	290,900	61,277	[3] 169,321

[1] Preliminary, subject to revision.
[2] Does not include data for that part of The Works Program operated by the Works Progress Administration.
[3] Revised.
[4] Other than those reported by the Bureau of Public Roads.
[5] Includes $1,767,166 low-cost-housing project (Housing Division, P. W. A.).
[6] Revised; includes $3,794,670 low-cost-housing project (Housing Division, P. W. A.).

Table 7.—Value of Contracts Awarded and Force-Account Work Started on Construction and White-Collar Projects Financed From Federal Funds—Con.

Type of construction	Public Works Administration					
	Federal		Non-Federal			
			N. I. R. A.		E. R. A. A. 1935 [7]	
	December 1935	November 1935	December 1935	November 1935	December 1935	November 1935
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
All types	12,739,369	8,737,602	21,744,729	16,364,053	[5] 143,084,680	[6] 39,951,834
Building	6,750,592	1,916,747	13,357,217	5,798,740	[5] 101,964,979	[6] 27,175,296
Electrification					1,030,099	87,244
Forestry	0	0				
Heavy engineering					2,268,467	189,824
Hydroelectric power plants					99,598	
Naval vessels	5,262	0				
Public roads: Roads	2,377,410	2,838,997				
Railroad construction and repair			457,001	3,300,000		
Reclamation	434,564	490,820			228,293	543,372
River, harbor, and flood control	1,448,133	2,442,688			921,629	71,000
Streets and roads [4]	1,682,501	1,036,950	4,002,784	3,684,434	10,801,797	[5] 3,083,167
Water and sewerage systems	25,957	0	2,887,673	3,186,322	25,127,722	[5] 8,578,171
Miscellaneous	14,950	11,400	1,040,054	394,557	642,096	223,761

[3] Revised.
[4] Other than those reported by the Bureau of Public Roads.
[5] Includes $1,767,166 low-cost-housing project (Housing Division, P. W. A.).
[6] Revised; includes $3,794,670 low-cost-housing project (Housing Division, P. W. A.).
[7] Not included in The Works Program.

The value of public-building and highway-construction awards financed wholly by appropriations from State funds, as reported by the various State governments, for December 1934 and for November and December 1935, is shown in table 8, by geographic divisions.

Table 8.—Value of Public-Building and Highway-Construction Awards Financed Wholly by State Funds

Geographic division	Value of awards for public buildings			Value of awards for highway construction		
	December 1935	November 1935	December 1934	December 1935	November 1935	December 1934
All divisions	$1,076,094	$535,838	$1,642,246	$4,244,843	$3,900,917	$4,938,992
New England	0	4,000	52,461	208,546	237,035	126,576
Middle Atlantic	139,449	412,330	101,635	662,472	410,809	52,671
East North Central	33,493	35,782	792,957	233,761	412,809	3,032,668
West North Central	165,271	29,465	3,756	516,817	201,723	206,553
South Atlantic	39,760	2,035	313,288	44,115	295,542	79,191
East South Central	0	0	0	54,555	124,958	105,671
West South Central	433,072	0	282,007	1,774,093	1,413,267	751,200
Mountain	0	34	3,179	19,970	72,626	21,207
Pacific	265,049	52,192	92,963	730,514	732,148	563,255

RETAIL PRICES

Food Prices in January 1936

RETAIL food costs declined rather sharply during January, reversing the upward trend of the preceding 6 months. The composite index dropped from 82.5 percent of the 1923–25 average on December 31, 1935, to 80.7 on January 28, 1936. The 2.2-percent decrease in food costs for January was the largest reduction reported for any month since December 1933. A substantial part of this decline, however, must be attributed to the seasonal drop in prices which is customary at this time of the year.

Costs declined for all food groups except dairy products. The largest decreases were made by eggs, fats and oils, sugar and sweets, cereals and bakery products, and meats.

The group index for cereals and bakery products dropped 2.7 percent, largely as a result of price declines of 9.7 percent for wheat flour and 2.0 percent for white bread. Lower flour prices were reported by all 51 cities, the decreases ranging from 2.1 percent in Portland, Oreg., to 15.4 percent in Butte, Mont. Bread prices declined in 28 cities and rose slightly in 4 others. The drop in prices was most marked in the cities of the Middle Atlantic and East North Central areas. Price reductions, none of which exceeded 0.8 percent, were reported for all other items in the cereals and bakery-products group except cake and soda crackers. Cake prices continued at the December level and soda crackers rose 0.2 percent.

The 2.3-percent decrease in meat costs follows the normal seasonal movement of meat prices at this time of year. The price of all meats, except veal cutlets, beef liver, poultry, and leg of lamb, declined during the month. The reduction in pork prices ranged from 1.8 percent for sliced ham to 9.0 percent for chops and 10.4 for loin roast. The sharp drop in fresh-pork prices was general throughout the country. Beef prices declined moderately with reductions ranging from 1.6 percent for plate to 3.7 percent for sirloin steak. The 2.0 percent drop in the price of breast of lamb was the largest change for any of the lamb items.

The only group in which costs rose during January was dairy products. All items in the group except cheese contributed to the 0.5-percent rise in average costs. The largest changes were increases

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of 2.0 percent for evaporated milk and 1.9 percent for cream. The most important change, however, from the standpoint of influence upon the index was the 0.8-percent rise in the price of butter. Butter prices advanced in 29 of the 51 cities included in the index. The increases were general in the New England and Middle Atlantic areas. Most of the 21 cities which reported lower butter prices are in the South and far West. The 0.2-percent increase in fluid-milk prices resulted from advances of 1 cent a quart in Indianapolis and one-tenth of a cent a quart in Seattle.

Egg prices dropped 9.8 percent in January, continuing the seasonal decline which began in the latter part of November. The smallest price reduction, 1.3 percent, was reported by Omaha; and the largest, 28.7 percent, by Savannah. The decline in prices was most pronounced in the Pacific, West South Central, and South Atlantic areas.

Fruit and vegetable costs declined 1.0 percent during January. Price increases and decreases were about equally divided among the items of the fresh fruit and vegetable subgroup. Apple prices made the smallest change, an increase of 0.1 percent. Potatoes, another important item of the group, declined 1.1 percent. The divergent movement of fresh fruit and vegetable prices is indicated by the wide variation of the changes, which ranged from a decline of 17.5 percent for green beans to an advance of 8.5 percent for cabbage. The subgroup index dropped 1.0 percent. All the canned fruits and vegetables, except tomato soup and green beans, contributed to the 0.5-percent decline in costs for this subgroup. The 3.3-percent drop in the price of canned peaches was the only significant price change. Dried fruit and vegetable costs decreased 0.9 percent. The more important price changes were declines of 2.5 percent for navy beans and 2.1 percent for black-eyed peas and advances of 2.4 and 1.2 percent for lima beans and peaches, respectively.

Beverages and chocolate costs declined 0.1 percent during January. Chocolate prices continued the downward trend with a decrease of 1.8 percent for the month. Coffee prices fell 0.7 percent, dropping to the lowest level on record since 1913. The price of cocoa declined 0.5 percent, and tea prices rose 0.2 percent.

The group index for fats and oils fell 4.4 percent from December 31, 1935, to January 28, 1936. The most important factors contributing to this change in cost were reductions of 9.6 percent for lard and 5.4 percent for lard compound. Lower prices for lard were reported by all 51 cities, the declines ranging from 3.6 percent in San Francisco to 21.6 percent in Little Rock. The only other item in the group showing a significant price change was peanut butter, which declined 2.8 percent.

The 3.0-percent decline in the cost of sugar and sweets was due largely to a 3.6-percent drop in sugar prices. The price of sugar was lowered in 45 of the 51 cities included in the index. Atlanta reported the maximum reduction, 11.5 percent. Sugar prices did not change in the remaining six cities.

Indexes of retail food costs by major commodity groups in January 1936 and December 1935 are presented in table 1. This table also shows the comparative level of costs in January of the indicated years since 1929.

Table 1.—Indexes of Retail Food Costs in 51 Cities Combined,[1] by Commodity Groups

January 1936, December and January 1935, and January 1932 and 1929

[1923-25=100]

Commodity group	1936		1935			1935			1932	1929
	Jan. 28	Jan. 14	Dec. 31	Dec. 17	Dec. 3	Jan. 29	Jan. 15	Jan. 2	Jan. 15	Jan. 15
All foods	80.7	81.7	82.5	82.0	82.0	78.9	77.5	75.8	72.8	102.7
Cereals and bakery products	93.0	94.0	95.6	95.4	95.3	91.9	91.9	91.9	78.1	98.4
Meats	95.9	97.3	98.2	97.1	97.4	87.9	84.6	79.1	81.1	117.6
Dairy products	79.8	79.8	79.4	78.8	78.2	79.4	77.4	76.3	73.1	105.1
Eggs	69.6	73.8	77.2	80.5	82.8	76.8	76.2	76.4	62.1	105.0
Fruits and vegetables	62.1	62.7	62.7	61.3	60.7	61.1	60.6	59.9	63.4	88.2
Fresh	60.8	61.5	61.4	59.8	59.2	59.1	58.5	57.7	62.3	86.6
Canned	79.2	79.4	79.6	79.6	79.7	83.5	83.0	83.0	77.7	96.0
Dried	58.1	58.2	58.6	58.5	58.4	62.4	62.5	62.7	61.6	98.2
Beverages and chocolate	67.5	67.6	67.6	67.6	67.5	73.3	73.6	73.5	78.4	110.7
Fats and oils	77.6	79.3	81.2	82.3	83.1	75.0	72.9	70.5	60.1	94.1
Sugar and sweets	64.4	64.9	66.4	66.5	66.7	62.5	62.5	62.8	61.7	76.7

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined with the use of population weights.

The price of 57 of the 84 foods included in the index declined during January. Higher prices were reported for 24 items and 3 showed no change. Average prices for these 84 commodities for 51 large cities combined are shown in table 2. This table compares average prices in January 1936 with those for December 1935.

Table 2.—Average Retail Prices of 84 Foods in 51 Large Cities Combined [1]

January 1936 and December and January 1935

[*Indicates the 42 foods included in indexes prior to January 1935]

Article		1936		1935					
		Jan. 28	Jan. 14	Dec. 31	Dec. 17	Dec. 3	Jan. 29	Jan. 15	Jan. 2
Cereals and bakery products:									
Cereals:		*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
*Wheat flour	pound	4.8	4.9	5.4	5.4	5.4	5.0	5.1	5.0
*Macaroni	do	15.2	15.3	15.3	15.4	15.4	15.7	15.8	15.7
*Wheat cereal	28-oz. package	23.9	23.9	24.1	24.2	24.2	23.7	23.7	23.8
*Corn flakes	8-oz. package	8.1	8.1	8.1	8.1	8.1	8.5	8.4	8.4
*Corn meal	pound	5.0	5.0	5.0	5.0	5.0	4.9	4.9	4.8
Hominy grits	24-oz. package	9.1	9.1	9.1	9.2	9.1	9.5	9.4	9.4
*Rice	pound	8.6	8.7	8.7	8.6	8.6	8.3	8.3	8.2
*Rolled oats	do	7.4	7.4	7.4	7.4	7.4	7.3	7.2	7.3
Bakery products:									
*Bread, white	do	8.4	8.5	8.6	8.6	8.6	8.3	8.3	8.3
Bread, whole wheat	do	9.4	9.5	9.5	9.5	9.5	9.2	9.2	9.2
Bread, rye	do	9.1	9.2	9.2	9.2	9.2	8.8	8.8	8.8
Cake	do	24.3	24.3	24.2	24.3	24.2	21.9	21.9	21.9
Soda crackers	do	17.9	17.9	18.0	18.0	18.1	16.6	16.7	16.8
Meats:									
Beef:									
*Sirloin steak	do	37.4	38.7	38.8	38.0	38.0	38.2	36.8	33.4
*Round steak	do	34.2	34.9	34.9	34.6	34.5	33.3	31.7	28.9
*Rib roast	do	30.2	30.9	30.9	30.6	30.7	29.0	27.3	25.1
*Chuck roast	do	23.4	24.6	23.9	23.7	23.8	21.7	20.4	18.5
*Plate	do	16.9	17.7	17.2	16.9	16.9	14.2	13.2	12.1
Liver	do	25.4	25.3	25.0	25.0	24.9	19.0	18.6	18.3
Veal:									
Cutlets	do	42.0	42.1	41.4	41.0	40.9	38.4	35.8	33.7
Pork:									
*Chops	do	31.8	32.3	35.0	34.1	35.4	30.4	31.6	27.6
Loin roast	do	26.4	26.8	29.5	28.7	29.8	25.0	25.2	22.9
*Bacon, sliced	do	42.7	43.6	44.2	44.4	43.8	36.2	35.2	34.2
Bacon, strip	do	37.2	37.9	38.4	38.2	38.4	30.9	30.3	29.4
*Ham, sliced	do	49.1	49.2	50.0	49.6	49.8	41.6	40.7	39.7
Ham, whole	do	32.4	33.2	33.5	32.9	32.8	24.9	24.2	23.4
Salt pork	do	26.2	27.4	28.4	28.6	28.6	23.7	23.1	22.1
Lamb:									
Breast	do	13.2	13.8	13.5	13.2	13.1	12.7	11.6	10.5
Chuck	do	22.9	22.5	23.0	22.8	22.4	21.7	20.6	18.7
*Leg	do	29.1	29.0	29.0	28.5	28.6	28.9	27.5	24.9
Rib chops	do	35.2	35.7	35.5	34.9	34.4	36.3	35.3	31.6
Poultry:									
*Roasting chickens	do	32.2	32.3	32.1	31.2	31.1	28.2	27.0	26.3
Fish:									
Salmon, pink	16-oz. can	13.2	13.3	13.3	13.3	13.3	13.2	13.2	13.3
*Salmon, red	do	25.1	25.0	25.0	24.8	24.6	21.0	21.0	21.0
Dairy products:									
*Butter	pound	40.9	40.9	40.6	39.9	39.7	40.5	38.1	36.9
*Cheese	do	27.6	27.8	27.7	27.6	27.4	26.3	25.8	25.4
Cream	½ pint	14.9	14.9	14.6	14.7	14.7	14.4	14.2	14.3
*Milk, fresh	quart	11.8	11.8	11.6	11.6	11.5	11.8	11.7	11.6
*Milk, evaporated	14½-oz. can	7.3	7.3	7.2	7.1	6.9	6.9	6.8	6.6
*Eggs	dozen	36.2	38.4	40.2	41.9	43.1	40.0	39.7	39.8
Fruits and vegetables:									
Fresh:									
Apples	pound	5.4	5.4	5.5	5.2	5.1	6.0	6.2	6.0
*Bananas	do	6.6	6.6	6.4	6.5	7.1	6.5	6.5	6.4
Lemons	dozen	30.6	32.2	33.1	32.5	31.5	24.7	25.5	25.6
*Oranges	do	28.4	30.3	30.9	31.1	32.0	28.1	28.5	28.3
Beans, green	pound	16.2	18.0	19.6	16.1	13.3	23.8	25.4	18.6
*Cabbage	do	4.0	3.9	3.6	3.3	2.9	4.0	3.4	3.2
Carrots	bunch	6.1	6.1	6.1	6.0	5.4	6.5	6.0	5.9
Celery	stalk	10.4	10.3	9.9	9.3	9.2	10.9	10.4	9.8
Lettuce	head	7.6	7.2	8.0	8.4	9.6	9.0	9.0	9.8
*Onions	pound	4.3	4.3	4.2	4.1	4.1	4.2	4.2	4.1
*Potatoes	do	2.3	2.3	2.3	2.3	2.3	1.7	1.7	1.8
Spinach	do	7.8	8.1	8.7	8.5	6.8	10.1	8.6	9.1
Sweetpotatoes	do	3.7	3.6	3.5	3.4	3.3	4.0	3.9	3.9
Canned:									
Peaches	no. 2½ can	18.5	19.0	19.1	19.1	19.1	19.1	19.0	19.0
Pears	do	22.5	22.5	22.6	22.6	22.5	22.7	22.6	22.6
Pineapple	do	22.5	22.5	22.6	22.5	22.5	22.3	22.3	22.2
Asparagus	no. 2 can	25.7	25.7	25.7	25.7	25.7	24.3	24.3	24.2
Beans, green	do	11.5	11.5	11.5	11.5	11.6	12.0	12.0	11.8
*Beans with pork	16-oz. can	7.1	7.1	7.1	7.1	7.1	6.9	6.9	6.9
*Corn	no. 2 can	11.4	11.4	11.5	11.6	11.7	12.6	12.5	12.5
*Peas	do	16.1	16.2	16.2	16.2	16.2	17.4	17.3	17.3
*Tomatoes	do	9.3	9.3	9.3	9.3	9.3	10.4	10.4	10.4
Tomato soup	10½-oz. can	8.0	8.0	8.0	8.0	8.0	8.0	7.9	7.9

[1] Prices for individual cities are combined with the use of population weights.

Table 2.—Average Retail Prices of 84 Foods in 51 Large Cities Combined [1]

January 1936 and December and January 1935—Continued

Article	1936		1935					
	Jan. 28	Jan. 14	Dec. 31	Dec. 17	Dec. 3	Jan. 29	Jan. 15	Jan. 2
Fruits and vegetables—Continued.								
Dried:	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Peaches, pound	17.1	17.0	16.9	16.9	16.6	16.7	16.9	16.7
*Prunes, do	10.0	10.0	10.0	9.9	10.0	11.5	11.5	11.5
*Raisins, 15-oz. package	9.6	9.5	9.5	9.5	9.6	9.7	9.7	9.6
Black-eyed peas, pound	8.5	8.6	8.7	8.7	8.7	8.6	8.6	8.5
Lima beans, do	10.1	9.9	9.9	9.9	9.9	9.9	10.0	10.0
*Navy beans, do	5.6	5.7	5.8	5.8	5.8	6.2	6.2	6.3
Beverages and chocolate:								
*Coffee, do	24.2	24.3	24.3	24.3	24.2	27.5	27.6	27.5
*Tea, do	68.0	68.2	67.9	67.9	67.9	68.1	68.6	68.7
Cocoa, 8-oz. can	10.8	10.8	10.9	10.9	10.9	11.3	11.4	11.4
Chocolate, 8-oz. package	16.7	16.9	17.1	17.2	17.3	21.8	21.0	21.1
Fats and oils:								
*Lard, pure, pound	17.1	17.9	18.9	19.3	19.8	17.6	17.0	16.2
Lard, compound, do	15.3	15.5	16.2	16.3	16.9	15.4	15.0	14.1
*Vegetable shortening, do	22.0	21.9	22.0	22.0	22.0	20.1	19.7	19.6
Salad oil, pint	24.7	24.8	24.8	24.8	24.8	23.4	23.2	22.8
Mayonnaise, ½ pint	16.9	16.9	16.9	17.0	17.0	15.6	15.3	15.4
*Oleomargarine, pound	18.7	18.7	18.8	18.6	18.6	17.3	16.9	16.4
Peanut butter, do	20.7	21.1	21.3	21.5	21.8	18.8	18.3	18.2
Sugar and sweets:								
Sugar, do	5.6	5.7	5.8	5.8	5.9	5.4	5.4	5.4
Corn sirup, 24-oz. can	13.7	13.7	13.7	13.7	13.8	13.5	13.4	13.4
Molasses, 18-oz. can	14.4	14.4	14.4	14.4	14.4	14.0	14.0	14.0
Strawberry preserves, pound	20.2	20.3	20.3	20.4	20.3	20.5	20.5	20.6

[1] Prices for individual cities are combined with the use of population weights.

Details by Regions and Cities

RETAIL food costs declined in all of the 51 cities included in the index. The largest average decreases were reported by cities in the South Atlantic and South Central areas.

Food costs dropped most sharply in Louisville. Only half of the 3.9-percent decline in costs was due to actual price changes, however, the other half being due to the elimination of a 3.0-percent sales tax in Kentucky after January 15. Some of the more important price reductions, with the effect of the sales tax eliminated, were: Wheat flour, 13.7 percent; strip bacon, 12.3 percent; and tea and sugar, each 6.3 percent.

The smallest decline in food costs, 0.1 percent, occurred in Butte. Higher prices were reported for 38 of the 87 foods. Fruit and vegetable costs and prices of all meats except pork rose substantially. Lower prices were reported for only 19 foods, but the declines were quite large for several important items, including wheat flour and eggs.

Retail food prices in Hawaii are given in the biweekly press releases showing prices of foods by cities. Copies are available upon request.

Index numbers of average retail costs of all foods, by cities, for January 1936 and December 1935, and for January of earlier years as indicated, are shown in table 3.

Table 3.—Indexes of the Average Retail Cost of all Foods, by Cities[1]

January 1936, December and January 1935, and January 1934, 1933, 1932, and 1929

[1923-25=100]

Region and city	1936		1935						1934	1933	1932	1929
	Jan. 28	Jan. 14	Dec. 31	Dec. 17	Dec. 3	Jan. 29	Jan. 15	Jan. 2	Jan. 16	Jan. 15	Jan. 15	Jan. 15
Average: 51 cities combined	80.7	81.7	82.5	82.0	82.0	78.9	77.5	75.8	70.5	62.6	72.8	102.7
New England	79.2	79.9	80.6	80.5	80.4	77.8	75.9	74.2	70.2	64.0	73.8	102.1
Boston	77.3	77.8	78.5	78.3	78.2	76.2	74.4	73.2	68.5	63.0	72.4	101.5
Bridgeport	84.5	86.3	86.5	86.7	86.4	81.7	80.4	79.4	74.0	67.3	76.9	102.3
Fall River	80.1	80.9	81.7	81.2	81.5	77.2	76.1	75.0	70.2	61.8	72.1	103.3
Manchester	81.7	82.8	82.7	82.9	82.7	79.6	78.2	75.9	71.4	62.6	71.1	101.4
New Haven	83.8	84.9	85.9	85.6	86.0	82.3	79.3	76.2	74.2	66.9	78.8	103.9
Portland, Maine	79.7	79.8	80.7	81.0	80.6	77.1	74.9	74.2	71.8	63.6	74.0	102.5
Providence	78.6	79.0	80.2	79.9	80.1	76.7	74.7	72.9	69.5	63.4	72.1	101.2
Middle Atlantic	81.7	83.1	83.5	83.0	83.1	80.3	78.9	77.0	72.1	64.3	73.5	102.8
Buffalo	80.2	81.3	82.3	82.0	81.6	77.9	76.0	74.8	70.6	61.5	69.3	103.2
Newark	82.9	83.9	84.7	84.5	84.7	81.9	80.8	79.1	72.6	67.6	75.7	103.0
New York	83.3	84.3	84.5	84.1	84.0	81.8	80.3	78.2	72.8	67.2	75.9	103.0
Philadelphia	82.5	84.7	85.0	84.2	84.9	80.9	79.7	77.5	73.2	63.4	72.9	101.6
Pittsburgh	78.8	80.2	80.2	80.1	80.1	78.4	77.4	75.9	69.7	59.2	69.7	104.7
Rochester	80.2	81.4	82.2	81.7	80.9	75.5	74.6	73.4	69.4	60.0	70.4	100.6
Scranton	77.9	78.9	79.3	78.9	78.9	76.1	73.8	72.7	70.5	61.7	71.7	103.5
East North Central	80.9	81.5	82.4	81.8	81.6	78.3	76.8	75.3	69.9	60.3	72.3	103.9
Chicago	81.4	82.2	83.2	82.6	81.7	80.3	77.5	76.5	70.3	61.9	75.8	105.4
Cincinnati	84.0	84.8	85.7	84.9	85.3	79.1	77.3	77.4	71.1	62.4	75.2	105.8
Cleveland	79.1	79.8	80.4	79.6	79.8	76.6	75.7	73.4	69.3	58.8	69.6	101.1
Columbus, Ohio	81.8	82.4	83.6	83.2	83.0	78.2	77.3	76.6	71.9	59.7	70.8	102.9
Detroit	81.0	81.1	82.0	80.9	81.3	76.4	76.3	74.1	68.4	57.3	67.6	103.3
Indianapolis	79.1	81.1	81.7	81.3	80.9	75.9	75.2	73.8	69.4	59.4	70.1	104.4
Milwaukee	82.9	82.4	83.4	83.9	83.8	79.0	77.0	75.6	71.7	63.3	76.5	103.8
Peoria	81.2	82.4	84.1	82.9	82.4	78.9	78.0	73.3	72.0	60.8	70.6	103.0
Springfield, Ill	78.3	79.0	80.3	80.9	81.3	76.7	75.0	73.7	68.5	59.6	69.0	102.4
West North Central	83.3	84.0	85.1	84.8	85.0	81.9	80.4	78.5	71.3	61.3	72.6	103.5
Kansas City	81.5	81.5	82.6	83.2	83.1	81.1	79.5	78.7	70.9	63.3	72.6	103.7
Minneapolis	86.6	87.0	87.7	86.6	87.3	84.5	82.2	81.0	74.3	61.9	75.0	103.9
Omaha	79.6	80.3	81.1	81.8	82.1	81.4	79.2	76.2	68.3	58.0	70.0	101.4
St. Louis	85.0	86.2	87.8	86.6	86.9	81.4	80.8	78.4	71.3	61.1	72.5	104.6
St. Paul	83.1	83.4	84.1	84.4	83.9	81.6	80.1	78.6	72.3	61.7	73.3	102.1
South Atlantic	80.5	82.1	83.3	82.9	82.2	78.1	76.7	75.2	69.7	61.5	71.6	101.0
Atlanta	76.9	78.3	80.6	80.8	79.6	75.8	74.4	72.7	65.5	57.3	67.1	103.6
Baltimore	84.2	85.1	85.8	86.1	84.9	81.0	79.2	77.6	73.1	64.0	73.5	100.0
Charleston, S. C	80.4	82.2	82.9	82.3	81.9	76.8	75.8	74.6	70.5	61.8	73.4	100.4
Jacksonville	77.6	79.7	80.3	79.8	79.5	73.3	73.8	72.4	65.7	56.9	68.5	96.0
Norfolk	81.8	82.9	84.0	83.2	82.2	78.1	76.9	74.7	70.1	62.7	76.2	105.5
Richmond	76.9	78.7	79.8	78.5	77.6	75.3	73.5	71.9	67.5	59.3	69.1	98.6
Savannah	79.9	81.9	83.3	82.9	82.3	77.3	76.0	75.8	69.1	61.7	71.2	101.6
Washington, D. C	82.7	85.3	86.2	85.7	86.2	81.5	79.7	78.1	72.4	65.2	73.8	103.0
East South Central	75.2	77.0	78.9	77.9	77.5	75.2	74.3	73.1	67.4	57.5	67.6	102.2
Birmingham	70.9	71.9	74.0	72.6	72.1	71.0	70.3	69.7	64.6	55.0	64.9	100.2
Louisville	83.8	87.4	89.0	88.4	88.0	82.1	81.2	79.1	72.0	61.4	71.9	106.4
Memphis	76.4	77.7	79.6	79.6	79.6	78.6	77.0	75.1	70.0	59.6	69.9	102.7
Mobile	74.8	76.5	77.2	76.8	76.8	75.9	72.8	71.5	66.3	59.4	68.6	100.9
West South Central	78.8	80.5	[2]81.2	[2]81.0	[2]81.0	77.8	77.4	75.9	68.6	60.3	71.5	102.1
Dallas	77.7	79.8	79.7	80.5	80.5	77.1	76.3	75.1	67.4	60.2	70.6	103.3
Houston	77.6	79.2	[2]80.0	[2]80.3	[2]79.9	76.9	75.4	75.9	67.7	57.3	70.4	99.7
Little Rock	76.9	78.3	78.9	78.5	78.5	76.8	75.3	73.7	68.2	55.5	66.1	104.3
New Orleans	82.2	83.3	85.0	83.4	83.9	80.4	82.3	77.6	71.9	65.6	75.7	103.1
Mountain	83.2	83.8	84.7	84.9	84.9	80.9	78.6	77.1	67.8	62.9	71.3	99.5
Butte	77.8	77.5	77.9	78.7	78.9	78.0	75.5	73.2	63.3	61.6	74.8	100.5
Denver	85.1	86.0	86.9	86.6	87.3	83.6	81.3	79.4	70.5	65.6	72.0	99.3
Salt Lake City	80.9	81.1	82.1	83.1	82.3	77.2	74.9	74.5	64.5	58.6	69.1	99.5
Pacific	78.6	78.9	79.6	78.6	79.4	76.3	75.8	73.9	67.9	64.2	73.4	101.0
Los Angeles	74.5	74.6	75.6	74.0	75.0	72.4	72.0	71.0	65.0	61.4	70.6	99.0
Portland, Oreg	79.5	79.9	79.9	80.1	80.3	75.6	74.4	73.3	65.7	62.8	70.9	100.6
San Francisco	82.4	82.7	83.3	82.4	83.7	80.1	80.0	77.0	71.2	68.5	77.7	103.7
Seattle	80.9	81.3	81.8	81.6	80.9	78.8	77.2	74.9	69.4	62.7	72.7	100.4

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined with the use of population weights.

[2] Revised.

Retail Food Costs and Prices in 1935

RETAIL food costs in the larger cities of the United States increased substantially during 1935. The revised index rose 8.8 percent during the year from 75.8 percent of the 1923–25 average on January 2, 1935, to 82.5 percent on December 31, 1935. On the same basis average costs for 1935 were about 9 percent above the 1934 level.

With the exception of beverages and chocolate, the index for each of the eight groups was higher at the close of 1935 than at the beginning. The most significant advances were made by meats and by fats and oils.

Meat costs rose sharply during the first 5 months of the year. The slight reduction in costs during June and July was due very largely to the decline in beef prices from the peak level of June 4. A continued rise in pork and other meat prices, however, caused the group index to rise to its highest level for the year in early September. During the latter part of September and through October and part of November, falling pork prices contributed materially to the decline in meat costs. The year closed with the index 24.1 percent above the January 2 level. The rise in meat prices in 1935 was shared by all items in the group. Pork made the largest increases, ranging from 25.9 percent for sliced ham to 43.2 percent for whole ham. Advances in beef prices ranged from 16.2 percent for sirloin steak to 42.1 percent for plate beef. Price increases were greater for the cheaper cuts. Poultry and veal prices rose rather steadily throughout the year, making gains of 22.1 and 22.8 percent respectively. Lamb prices followed much the same trend as pork, but the advances were less marked.

The cost of fats and oils rose 15.2 percent during 1935. The index for the group advanced to its highest level for the year late in September and declined rather sharply in the succeeding 3 months. Price increases within the limits of 8.8 and 17.0 percent were reported for each of the different items. Changes in the cost of fats and oils followed rather closely the trend of pork prices, largely as a result of the dominant importance of lard and lard compounds in the group.

Fruit and vegetable costs were 4.7 percent higher on December 31 than on January 2. The increase was due entirely to a 6.4-percent increase in the cost of the fresh items in the group. Indexes for the canned and the dried fruits and vegetables declined 4.1 and 6.5 percent respectively. The highly seasonal nature of many of the fruit and vegetable items explains in large measure the relatively wide fluctuations of group costs during the year. The combined index advanced sharply from January to the latter part of April when the peak level for the year was reached, then declined abruptly until early in October when the lowest level was reported. During the remainder of the year the index rose precipitously.

Potato prices were 27.8 percent higher at the close of 1935 than at the beginning. At the same time lemon prices rose 29.3 percent. Other important price changes in the fresh fruits and vegetables group were increases of 12.5 percent for cabbage and 9.2 percent for oranges, and decreases of 18.3 percent for lettuce and 8.3 percent for apples. The range of price changes was less for canned and dried fruits and vegetables than for fresh. Of the canned vegetables, declines of 10.6 percent for tomatoes, 8.0 percent for corn, and 6.4 percent for peas, and an advance of 6.2 percent for asparagus constituted the larger price changes. In the dried fruits and vegetables group the more important price changes were declines of 13.0 percent for prunes and 7.9 percent for navy beans.

The greater part of the 4.0-percent rise in the cost of cereals and bakery products occurred in the last 4 months of the year. Costs, which up to that time had been relatively stable, rose moderately in response to increases in the price of bread, wheat flour, and rice. These advances outweighed the declines in corn products and rolled oats which occurred at the same time.

The retail cost of dairy products advanced 4.1 percent during 1935. The group index reached its highest level in February, and declined during the succeeding 5 months. From the low level in July the cost of dairy products advanced gradually until the end of the year. A substantial part of these cost changes must be attributed to seasonal influences. All items in the dairy products group except fresh milk advanced in price. Butter prices rose 10.0 percent and the price of both cheese and evaporated milk increased 9.1 percent. Fresh milk was at the same price level at the close of the year as at the beginning.

Beverages and chocolate costs declined 8.0 percent between January 2 and December 31, largely as a result of price declines of 11.6 percent for coffee and 19.0 percent for chocolate. Coffee prices began to fall in the early part of March and leveled out in October. Chocolate prices did not begin to drop until the latter part of August but prices continued to decline through December. At the end of the year group costs were down nearly to the lowest level of the depression period.

Egg prices were 1.0 percent higher on December 31 than on January 2. The movement of egg prices followed rather closely the normal seasonal pattern, with the low level for the year coming at the end of March and the peak in the early part of November.

The cost of sugar and sweets advanced 5.7 percent, chiefly as a result of a 7.4 percent rise in sugar prices.

Retail Food Costs in 1933 and 1934

INDEXES of retail food costs by commodity groups with revised weights and on a 1923–25 base are given in table 4 for the indicated pricing periods of 1933 and 1934. All the revised indexes which have

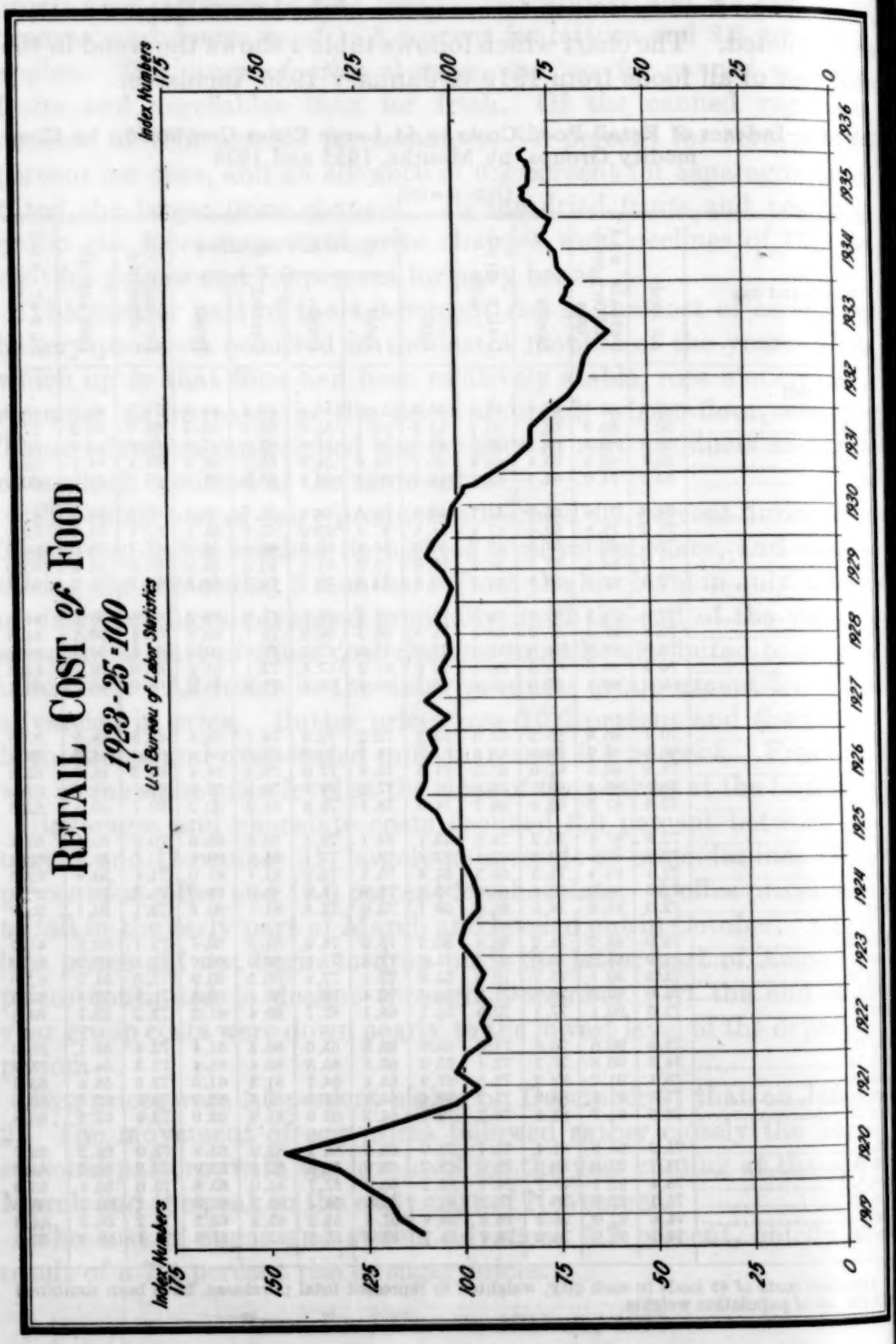
been completed to date are presented in this table and the corresponding tables of the January and February issues of the Monthly Labor Review. Indexes for the remaining periods since 1929 will be released from time to time in future issues of the Labor Review as they are completed. The chart which follows table 4 shows the trend in the retail cost of all foods from 1919 to January 1936, inclusive.

Table 4.—Indexes of Retail Food Costs in 51 Large Cities Combined,[1] by Commodity Groups, by Months, 1933 and 1934

[1923–25=100]

Month and day	All foods	Cereals and bakery products	Meats	Dairy products	Eggs	Fruits and vegetables				Beverages and chocolate	Fats and oils	Sugar and sweets
						Total	Fresh	Canned	Dried			
1933												
Jan. 15	62.6	69.5	64.8	63.4	66.9	52.3	51.4	66.4	48.6	71.1	46.9	58.3
Feb. 15	60.1	69.2	63.9	60.7	45.3	52.1	51.3	65.5	48.0	69.5	45.2	57.1
Mar. 15	59.8	69.3	64.2	59.8	42.7	52.1	51.4	65.3	47.3	68.5	45.0	57.4
Apr. 15	60.1	69.8	63.4	60.4	40.7	54.4	54.0	65.2	48.2	68.4	44.7	58.1
May 15	62.5	71.0	64.1	63.7	44.0	59.3	59.5	66.0	51.2	67.7	48.0	60.0
June 15	64.9	71.8	65.9	64.7	43.5	67.5	68.9	66.7	52.5	67.3	49.9	61.0
July 15	71.0	77.8	66.0	67.4	51.5	87.3	92.0	67.0	54.1	67.4	51.4	62.8
Aug. 15	72.0	83.1	67.4	67.2	53.0	84.9	88.9	68.8	56.7	67.7	52.0	64.5
Sept. 12	71.9	85.1	67.7	68.2	60.0	79.0	81.5	70.6	58.9	67.5	51.3	65.0
Sept. 26	72.0	86.9	68.9	68.3	63.5	75.0	76.7	71.7	59.7	68.1	51.2	65.0
Oct. 24	70.9	86.9	68.3	68.8	70.5	67.3	67.5	73.0	59.2	68.4	50.3	64.6
Nov. 7	70.8	87.1	67.9	69.4	72.3	66.2	66.2	73.1	59.0	68.4	50.4	64.6
Nov. 21	70.8	86.9	66.8	69.1	75.0	67.0	67.2	73.0	59.0	68.4	50.0	64.5
Dec. 5	70.2	86.5	65.3	69.1	72.9	67.2	67.4	73.1	58.9	68.0	49.1	64.3
Dec. 19	69.2	86.4	65.0	66.2	65.7	68.4	68.8	73.3	58.7	68.0	48.2	63.7
1934												
Jan. 2	70.1	86.6	65.2	67.0	63.3	72.2	73.3	74.7	58.6	68.3	48.5	62.6
Jan. 16	70.5	86.9	65.8	66.8	61.3	74.2	75.6	75.6	58.4	68.5	48.6	62.3
Jan. 30	71.2	86.5	67.0	67.5	61.5	75.8	77.0	79.1	59.4	69.2	48.9	62.6
Feb 13	72.5	86.8	69.6	70.0	58.6	77.3	78.7	79.5	59.8	69.5	49.6	62.2
Feb. 27	72.6	87.5	69.5	69.7	54.6	78.3	79.8	81.3	60.2	69.7	50.3	62.5
Mar. 13	72.8	87.4	70.2	70.5	53.1	78.1	79.5	80.6	60.6	70.6	50.5	62.4
Mar. 27	72.3	87.8	70.5	69.4	52.8	76.1	77.1	81.4	60.4	70.7	50.9	62.4
Apr. 10	72.1	88.1	71.3	68.3	51.4	75.1	75.9	81.1	61.0	71.4	50.9	62.5
Apr. 24	72.3	88.0	73.4	68.6	50.5	73.8	74.4	81.0	60.8	71.3	50.4	62.7
May 8	72.9	88.0	74.5	68.8	50.1	75.0	75.8	81.1	60.6	72.1	50.1	62.2
May 22	73.0	88.2	74.2	68.8	50.5	75.9	76.9	81.3	60.7	72.1	50.3	61.6
June 5	72.9	88.7	75.0	69.7	51.0	72.8	73.3	80.9	60.6	72.3	50.7	61.0
June 19	73.5	89.1	75.7	70.8	52.8	72.1	72.4	80.5	60.9	72.0	51.7	62.0
July 3	73.6	89.3	76.7	71.3	54.0	70.4	70.5	80.1	60.8	71.8	52.4	63.3
July 17	73.6	90.1	77.1	70.9	55.7	68.1	67.7	80.4	61.2	72.2	52.7	65.5
July 31	73.3	90.6	76.6	71.0	58.6	65.8	65.0	80.5	61.4	72.4	53.1	66.0
Aug. 14	74.3	90.8	77.3	72.4	63.0	66.5	65.8	80.4	61.4	72.3	54.8	65.7
Aug. 28	76.1	91.2	82.2	73.5	67.9	65.6	64.7	81.3	61.5	72.6	58.8	65.9
Sept. 11	77.1	91.5	84.9	73.2	70.4	65.8	64.8	81.6	62.2	72.7	62.3	66.0
Sept. 25	76.6	91.7	83.8	72.7	72.1	64.2	62.9	81.8	62.9	72.9	63.5	65.8
Oct. 9	75.9	91.9	81.4	73.1	73.9	62.0	60.1	82.0	63.8	73.0	64.2	65.7
Oct. 23	75.7	92.0	80.3	73.1	78.2	60.9	58.8	82.5	63.9	73.2	64.6	65.6
Nov. 6	75.4	92.1	77.7	74.7	81.2	60.0	57.7	83.0	63.8	73.0	65.1	65.8
Nov. 20	75.1	92.0	76.7	75.3	82.1	58.6	56.1	83.2	63.0	73.1	66.2	64.6
Dec. 4	74.8	92.0	76.5	75.3	80.4	57.8	55.2	83.3	62.5	73.2	66.9	64.3
Dec. 18	74.5	92.0	76.6	75.4	74.7	57.8	55.3	83.1	57.3	73.4	68.6	63.5

[1] Aggregate costs of 42 foods in each city, weighted to represent total purchases, have been combined with the use of population weights.


RETAIL COST of FOOD
1923-25=100
U.S. Bureau of Labor Statistics
Index Numbers
175
150
125
100
75
50
25
0
1936
1935
1934
1933
1932
1931
1930
1929
1928
1927
1926
1925
1924
1923
1922
1921
1920
1919

Electricity Prices in January 1936

RESIDENTIAL rates for electricity are secured quarterly from 51 cities. These rates are used for computing average prices and typical bills in each city for the quantities of electricity which most nearly approximate the consumption requirements of the usual domestic services. The blocks of consumption which have been selected as representative of average conditions throughout the country are 25, 40, 100, and 250 kilowatt-hours. The consumption constants are based on the requirements of a five-room house, including living room, dining room, kitchen, and two bedrooms. The two smaller quantities are applicable to the group of consumers who use electricity for lighting and small appliances alone. The 100-kilowatt block corresponds to the requirements for lighting, small appliances, and a refrigerator; and the 250-kilowatt block allows for the addition of an electric range to the preceding services.

The technical specifications which are used as the basis for the application of these rates are:

Floor area: 1,000 square feet.

	Watts
Connected load:	
Lighting and appliances	700
Refrigeration	300
Cooking	6,000
Measured demand:	
Lighting and appliances	600
Refrigeration	100
Cooking	2,300

Outlets: 14 50-watt.

Active room count: In accordance with schedule of rates.

Electricity rates for residential consumers declined in 7 of the 51 reporting cities between October 15, 1935, and January 15, 1936. In five of these cities the rate changes were graduated so as to give a proportionately greater reduction to the consumers who use electricity for lighting and small appliances alone. These cities are Butte, Charleston (S. C.), Omaha, St. Paul, and Birmingham. The rate reductions in Little Rock and San Francisco favored consumers who use electricity for refrigeration or cooking in addition to lighting and small appliances. On the basis of the smallest-use classification, 25 kilowatt-hours, the rate decreases ranged from 6.5 percent in Birmingham to 22.5 percent in Butte. In the largest-use classification, 250 kilowatt-hours, the smallest reduction—0.9 percent—was made by Butte, and the largest—13.2 percent—by Little Rock.

Typical bills and the average price per kilowatt-hour for the various blocks of consumption in each of the 51 cities are shown in table 5.

Table 5.—Total Net Monthly Bill and Price per Kilowatt-hour for Specified Amounts of Electricity Based on Rates as of Jan. 15, 1936, by Cities

[P=private utility, M=municipal plant]

Region and city		Total net monthly bill				Net monthly price per kilowatt-hour			
		Lighting and small appliances		Lighting, appliances, and refrigerator	Lighting, appliances, refrigerator, and range	Lighting and small appliances		Lighting, appliances, and refrigerator	Lighting, appliances, refrigerator and range
		25 kilowatt-hours	40 kilowatt-hours	100 kilowatt-hours	250 kilowatt-hours	25 kilowatt-hours	40 kilowatt-hours	100 kilowatt-hours	250 kilowatt-hours
						Cents	*Cents*	*Cents*	*Cents*
New England:									
Boston	P	$1.55	$2.30	$5.10	$9.60	6.2	5.8	5.1	3.
Bridgeport	P	1.31	2.05	4.87	8.90	5.3	5.1	4.9	3.
Fall River	P	1.75	2.60	5.20	9.35	7.0	6.5	5.2	3.
Manchester	P	2.00	2.80	5.00	8.00	8.0	7.0	5.0	3.
New Haven	P	1.31	2.05	4.87	8.90	5.3	5.1	4.9	3.
Portland, Maine	P	1.88	2.63	4.73	7.73	7.5	6.6	4.7	3.
Providence	P	1.87	2.81	5.60	9.63	7.5	7.0	5.6	3.
Middle Atlantic:									
Buffalo	P	1.13	1.70	3.06	5.31	4.5	4.3	3.1	2.
Newark	P	1.92	2.60	4.50	8.75	7.7	6.5	4.5	3.
New York: [1]									
Bronx	P	1.80	2.56	4.92	8.26	7.2	6.4	4.9	3.
	P	1.80	2.56	4.92	8.26	7.2	6.4	4.9	3.
Brooklyn	P	1.80	2.56	4.92	8.26	7.2	6.4	4.9	3.
Manhattan	P	1.80	2.56	4.92	8.26	7.2	6.4	4.9	3.
Queens	P	1.80	2.56	4.92	8.26	7.2	6.4	4.9	3.
	P	2.17	3.26	6.38	13.01	8.7	8.2	6.4	5.
Richmond	P	2.19	3.17	5.62	9.09	8.8	7.9	5.6	3.
Philadelphia	P	1.50	2.25	4.25	7.50	6.0	5.6	4.3	3.
Pittsburgh	P	1.25	2.00	4.00	8.50	5.0	5.0	4.0	3.
Rochester	P	1.59	2.26	4.56	7.81	6.4	5.7	4.6	3.
Scranton	P	1.63	2.45	4.85	9.35	6.5	6.1	4.9	3.
East North Central:									
Chicago	P	1.51	2.04	3.75	8.02	6.0	5.1	3.8	3.
Cincinnati	P	1.13	1.58	2.88	5.88	4.5	4.0	2.9	2.
Cleveland	P	1.00	1.60	4.00	9.88	4.0	4.0	4.0	4.
	M	.88	1.31	3.05	7.40	3.5	3.3	3.1	3.
Columbus	P	1.25	1.95	4.50	8.50	5.0	4.9	4.5	3.
	M	1.00	1.58	3.80	8.30	4.9	4.0	3.8	3.
Detroit [2 3]	P	1.43	1.99	3.65	7.12	5.7	5.0	3.7	2.
Indianapolis	P	1.44	2.30	4.80	8.53	5.8	5.8	4.8	3.
Milwaukee	P	1.41	1.90	3.60	6.48	5.6	4.8	3.6	2.
Peoria	P	1.50	2.01	3.57	6.32	6.0	5.0	3.6	2.
Springfield, Ill	P	1.25	1.90	3.90	6.90	5.0	4.8	3.9	2.
	M	1.25	1.90	3.02	4.80	5.0	4.8	3.0	1.
West North Central:									
Kansas City [4]	P	1.65	2.32	4.04	7.83	6.6	5.8	4.0	3.
Minneapolis	P	1.66	2.18	3.80	6.79	6.6	5.5	3.8	2.
Omaha	P	1.19	1.90	3.88	7.78	4.8	4.8	3.9	3.
St. Louis [2 4]	P	1.20	1.73	3.16	6.28	4.8	4.3	3.2	2.
	P	1.08	1.44	2.88	5.76	4.3	3.6	2.9	2.
St. Paul	P	1.60	2.15	3.85	7.00	6.4	5.4	3.9	2.
South Atlantic:									
Atlanta:									
Immediate	P	1.62	2.37	4.57	8.32	6.5	5.9	4.6	3.
Inducement [5]	P	1.45	2.12	3.95	6.57	5.8	5.3	4.0	2.
Baltimore	P	1.25	2.00	4.18	8.98	5.0	5.0	4.2	3.
Charleston, S. C.:									
Immediate	P	1.60	2.50	5.35	8.85	6.4	6.3	5.4	3.
Objective [5]	P	1.50	2.25	4.20	6.82	6.0	5.6	4.2	2.
Jacksonville	M	1.75	2.70	4.95	7.95	7.0	6.8	5.0	3.
Norfolk	P	1.50	2.25	4.80	7.80	6.0	5.6	4.8	3.
Richmond	P	1.50	2.25	4.80	7.80	6.0	5.6	4.8	3.
Savannah	P	1.63	2.38	4.57	8.32	6.5	6.0	4.6	3.
Washington	P	.98	1.56	3.50	5.67	3.9	3.9	3.5	2.

Footnotes at end of table.

Table 5.—Total Net Monthly Bill and Price per Kilowatt-hour for Specified Amounts of Electricity Based on Rates as of Jan. 15, 1936, by Cities—Contd.

[P=private utility, M=municipal plant]

Region and city		Total net monthly bill				Net monthly price per kilowatt-hour			
		Lighting and small appliances		Lighting, appliances, and refrigerator	Lighting, appliances, refrigerator, and range	Lighting and small appliances		Lighting, appliances, and refrigerator	Lighting, appliances, refrigerator, and range
		25 kilowatt-hours	40 kilowatt-hours	100 kilowatt-hours	250 kilowatt-hours	25 kilowatt-hours	40 kilowatt-hours	100 kilowatt-hours	250 kilowatt-hours
East South Central:						*Cents*	*Cents*	*Cents*	*Cents*
Birmingham:									
Immediate	P	$1.45	$2.20	$3.95	$7.50	5.8	5.5	4.0	3.0
Objective [5]	P	.98	1.56	3.20	6.95	3.9	3.9	3.2	2.8
Louisville	P	1.25	2.00	3.80	8.30	5.0	5.0	3.8	3.3
Memphis	P	1.38	2.20	4.25	8.75	5.5	5.5	4.3	3.5
Mobile:									
Present	P	1.55	2.30	4.05	7.60	6.2	5.8	4.1	3.0
Objective [5]	P	1.45	2.13	3.95	6.58	5.8	5.3	4.0	2.6
West South Central:									
Dallas	P	1.38	2.20	4.60	8.40	5.5	5.5	4.6	3.4
Houston	P	1.30	1.90	4.30	8.28	5.2	4.8	4.3	3.3
Little Rock: [1]									
Present	P	1.99	2.88	5.20	8.67	8.0	7.2	5.2	3.5
Centennial [5]	P	1.84	2.63	5.10	8.67	7.4	6.6	5.1	3.5
New Orleans	P	1.88	2.85	5.50	10.25	7.5	7.1	5.5	4.1
Mountain:									
Butte	P	1.55	2.38	4.43	7.93	6.2	6.0	4.4	3.2
Denver [1]	P	1.53	2.45	4.90	9.49	6.1	6.1	4.9	3.8
Salt Lake City: [1]									
Present	P	1.92	2.99	4.92	7.85	7.7	7.5	4.9	3.1
Objective [5]	P	1.63	2.30	3.83	7.14	6.5	5.8	3.8	2.9
Pacific:									
Los Angeles	P	1.20	1.81	3.31	6.31	4.8	4.5	3.3	2.5
	P	1.25	2.00	5.00	7.00	5.0	5.0	5.0	2.8
	M	1.20	1.81	3.31	6.31	4.8	4.5	3.3	2.5
Portland, Oreg.	P	1.38	1.95	3.39	6.09	5.5	4.9	3.4	2.4
	P	1.38	1.95	3.39	6.09	5.5	4.9	3.4	2.4
San Francisco	P	1.40	2.00	3.50	7.15	5.6	5.0	3.5	2.9
Seattle	P	1.25	2.00	3.20	6.08	5.0	5.0	3.2	2.4
	M	1.25	2.00	3.20	6.10	5.0	5.0	3.2	2.4

[1] Prices include 2-percent sales tax.
[2] Prices include free lamp-renewal service.
[3] Prices include 3-percent sales tax.
[4] Prices include 1-percent sales tax.
[5] The "inducement" rate in Atlanta, the "objective" rate in Charleston (S. C.), Birmingham, Mobile, and Salt Lake City, and the "centennial" rate in Little Rock are designed to encourage greater use of electricity.

The percentage changes in the net monthly price of specified amounts of electricity from October 15, 1935, to January 15, 1936, are shown in table 6. Data are given in this table for only those cities for which price changes were reported during this period.

Table 6.—Percentage Decrease in the Total Monthly Bill for Specified Amounts of Electricity by Cities

Jan. 15, 1936, Compared with Oct. 15, 1935

[P=private utility, M=municipal plant]

Region and city	Percentage decrease, Oct. 15, 1935, to Jan. 15, 1936			
	25 kilowatt-hours	40 kilowatt-hours	100 kilowatt-hours	250 kilowatt-hours
West North Central:				
Omaha—P	13.8	13.6	8.7	4.5
St. Paul—P	8.6	6.5	3.7	2.1
South Atlantic:				
Charleston:				
Immediate—P	17.1	13.8	4.5	10.1
Objective—P	12.3	11.4	9.1	5.8
East South Central:				
Birmingham:				
Immediate—P	6.5	4.3	2.5	1.3
West South Central:				
Little Rock:				
Present—P	7.0	2.7	0	11.4
Mountain:				
Butte—P	22.5	8.7	1.6	.9
Pacific:				
San Francisco—P	8.5	4.8	16.7	8.9

Gas Prices in January 1936

RESIDENTIAL rates for gas are secured from 50 cities. These rates are used in computing average prices and typical bills in each city for the quantities of gas which most nearly approximate the consumption requirements of the usual domestic services. In order to put the rate quotations upon a comparable basis it is necessary to convert the nominal price per cubic foot into an equivalent price per heat unit. This procedure is necessary because of the wide range in the heating value of a cubic foot of gas between different cities. The blocks of consumption which have been selected as representative of average conditions throughout the country are: 10.6; 19.6; 30.6; and 40.6 therms. These consumption constants are based upon the requirements of a five-room house, including living room, dining room, kitchen, and two bedrooms. The smallest quantity applies to the consumers who use gas for cooking alone. The next two use classifications are based upon consumption requirements of different types of hot-water heaters in addition to a range. The 40.6 therm block allows for the addition of a refrigerator to the preceding services.

Reductions in the schedule of residential gas rates between October 15, 1935, and January 15, 1936, were reported by the following five cities: Butte, Brooklyn, Mobile, Washington, and Minneapolis. In Butte rates were reduced sharply for each of the four blocks of consumption for which typical bills are computed. The decreases range from 38.7 percent when gas is used solely for cooking, to 20.6 percent for the quantity required for all the various services, including refrigeration. The gradation of rate reductions in each of the other

four cities, however, was the reverse of that in Butte. The gas company which lowered its rates in Brooklyn, for instance, made no reduction to the consumer who used gas for cooking alone, and made the largest concession, 16.9 percent, to consumers in the largest-use classification. The rate changes in the other three cities were relatively small, ranging between 1.5 and 2.3 percent in Minneapolis; 1.3 and 4.4 percent in Washington; and 3.4 and 4.7 percent in Mobile. Typical monthly bills and prices per thousand cubic feet and per therm for each of the 50 cities are shown in table 5. Details regarding the method of computing the data presented in this table were given in the January 1936 issue of the Monthly Labor Review (pp. 254, 255).

Table 7.—Total Net Monthly Bill and Prices per Thousand Cubic Feet and per Therm for Specified Amounts of Gas, Based on Rates as of Jan. 15, 1936, by Cities

Region and city	Kind of gas [1]	Heating value per cubic foot in British thermal units	Monthly consumption in cubic feet and net monthly bill based on specified numbers of therms [2]								Net monthly price based on consumption of specified numbers of therms [2]							
			Range, 10.6 therms		Range and water heater of indicated type				Range, automatic [3] water heater, and refrigerator, 40.6 therms		Per thousand cubic feet for—				Per therm for—			
					Manual, 19.6 therms		Automatic,[3] 30.6 therms				Range, 10.6 therms	Range and water heater of indicated type		Range, automatic [3] water heater, and refrigerator, 40.6 therms	Range, 10.6 therms	Range and water heater of indicated type		Range, automatic [3] water heater, and refrigerator, 40.6 therms
			Cubic feet	Bill	Cubic feet	Bill	Cubic feet	Bill	Cubic feet	Bill		Manual, 19.6 therms	Automatic,[3] 30.6 therms			Manual, 19.6 therms	Automatic,[3] 30.6 therms	
				Dollars		*Dollars*		*Dollars*		*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Cents*	*Cents*	*Cents*	*Cents*
New England:																		
Boston	M	528	2,010	2.51	3,710	4.21	5,800	5.76	7,690	7.27	1.25	1.13	0.99	0.95	23.7	21.5	18.8	17.9
	M	528	2,010	2.31	3,710	4.27	5,800	5.69	7,690	7.20	1.15	1.15	.98	.94	21.8	21.8	18.6	17.7
Fall River	M	528	2,010	2.53	3,710	4.06	5,800	5.94	7,690	7.64	1.26	1.09	1.02	.99	23.9	20.7	19.4	18.8
Manchester	M	525	2,020	2.85	3,730	4.82	5,830	5.67	7,730	6.92	1.41	1.29	.97	.90	26.9	24.6	18.5	17.0
New Haven	M	528	2,010	2.41	3,710	4.11	5,800	6.20	7,690	8.09	1.20	1.11	1.07	1.05	22.7	21.0	20.3	19.9
Portland, Maine	M	525	2,020	3.03	3,730	5.16	5,830	6.49	7,730	8.03	1.50	1.38	1.12	1.04	28.6	26.3	21.2	19.8
Providence	M	510	2,080	2.57	3,840	4.16	6,000	6.10	7,960	7.86	1.24	1.08	1.02	.99	24.2	21.2	19.9	19.4
Middle Atlantic:																		
Buffalo	X	900	1,180	.77	2,180	1.42	3,400	2.21	4,510	2.93	.65	.65	.65	.65	7.3	7.2	7.2	7.2
Newark	M	525	2,020	2.69	3,730	4.31	5,830	6.06	7,730	7.29	1.33	1.16	1.04	.94	25.4	22.0	19.8	18.0
New York:[4]																		
Bronx	M	537	1,970	2.32	3,650	4.28	5,700	6.69	7,560	8.86	1.18	1.17	1.17	1.17	21.9	21.8	21.9	21.8
	M	537	1,970	2.32	3,650	4.28	5,700	6.69	7,560	8.86	1.18	1.17	1.17	1.17	21.9	21.8	21.9	21.8
Brooklyn	M	537	1,970	2.35	3,650	3.81	5,700	5.27	7,560	6.45	1.19	1.04	.93	.85	22.2	19.4	17.2	15.9
	M	537	1,970	2.45	3,650	4.07	5,700	6.06	7,560	7.86	1.24	1.12	1.06	1.04	23.1	20.8	19.8	19.4
	M	537	1,970	2.59	3,650	4.40	5,700	6.59	7,560	8.58	1.31	1.21	1.16	1.13	24.4	22.4	21.5	21.1
Manhattan	M	537	1,970	2.32	3,650	4.28	5,700	6.69	7,560	8.86	1.18	1.17	1.17	1.17	21.9	21.8	21.9	21.8
Queens	M	537	1,970	2.32	3,650	4.28	5,700	6.69	7,560	8.86	1.18	1.17	1.17	1.17	21.9	21.8	21.9	21.8
	M	537	1,970	2.32	3,650	4.28	5,700	6.69	7,560	8.86	1.18	1.17	1.17	1.17	21.9	21.8	21.9	21.8
Richmond	M	537	1,970	3.12	3,650	5.12	5,700	7.11	7,560	8.90	1.58	1.40	1.25	1.18	29.4	26.1	23.2	21.9
Philadelphia	M	530	2,000	1.80	3,700	3.25	5,770	5.00	7,660	6.61	.90	.88	.87	.86	17.0	16.6	16.3	16.3
Pittsburgh	N	1,130	940	[5] 1.00	1,730	1.04	2,710	1.63	3,590	2.15	1.06	.60	.60	.60	9.4	5.3	5.3	5.3
	N	1,100	960	[5] 1.00	1,780	1.07	2,780	1.67	3,690	2.21	1.04	.60	.60	.60	9.4	5.5	5.5	5.4
	N	1,100	960	[5] 1.00	1,780	1.07	2,780	1.67	3,690	2.21	1.04	.60	.60	.60	9.4	5.5	5.5	5.4
Rochester	M	537	1,970	1.97	3,650	3.65	5,700	5.56	7,560	7.05	1.00	1.00	.98	.93	18.6	18.6	18.2	17.4
Scranton	M	520	2,040	3.10	3,770	4.97	5,880	7.08	7,810	9.01	1.52	1.32	1.20	1.15	29.2	25.4	23.1	22.2
East North Central:																		
Chicago	X	800	1,330	1.94	2,450	3.33	3,830	4.69	5,080	5.39	1.46	1.36	1.23	1.06	18.3	17.0	15.3	13.3
Cincinnati [6]	X	865	1,230	.91	2,270	1.63	3,540	2.45	4,690	3.16	.74	.72	.69	.67	8.6	8.3	8.0	7.8
	X	960	1,230	.75	1,780	.99	2,780	1.43	3,690	1.93	.78	.50	.51	.52	7.1	4.5	4.7	4.8

Rochester	M	537	1,970	1.97	3,650	3.65	5,700	5.56	7,560	7.05	1.00	1.00	.98	.93	18.6	18.6	18.2	17.4
Scranton	M	520	2,040	3.10	3,770	4.97	5,880	7.08	7,810	9.01	1.52	1.32	1.20	1.15	29.2	25.4	23.1	22.2
East North Central:																		
Chicago	X	800	1,330	1.94	2,450	3.33	3,830	4.69	5,080	5.39	1.46	1.36	1.23	1.06	18.3	17.0	15.3	13.3
Cincinnati [6]	X	865	1,230	.91	2,270	1.63	3,540	2.45	4,690	3.16	.74	.72	.69	.67	8.6	8.3	8.0	7.8
Cleveland [6]	N	1,100	960	[5].75	1,780	.89	2,780	1.43	3,690	1.93	.78	.50	.51	.52	7.1	4.5	4.7	4.8
Columbus	N	1,030	1,030	[5].75	1,900	1.05	2,970	1.63	3,940	2.17	.73	.55	.55	.55	7.1	5.4	5.3	5.3
	N	1,030	1,030	[5].75	1,900	.91	2,970	1.43	3,940	1.89	.73	.48	.48	.48	7.1	4.6	4.7	4.7
Detroit [7]	M	530	2,000	1.71	3,700	3.16	5,770	4.93	7,660	6.55	.86	.85	.85	.86	16.1	16.1	16.1	16.1
Indianapolis	M	570	1,860	1.77	3,440	3.27	5,370	5.10	7,120	6.76	.95	.95	.95	.95	16.7	16.7	16.7	16.7
Milwaukee	M	520	2,040	1.73	3,770	3.03	5,880	4.61	7,810	6.02	.85	.80	.78	.77	16.3	15.5	15.1	14.8
Peoria	N	1,000	1,060	2.12	1,960	3.64	3,060	4.67	4,060	5.57	2.00	1.86	1.53	1.37	20.0	18.6	15.3	13.7
Springfield	N	1,000	1,060	1.91	1,960	3.36	3,060	4.66	4,060	5.56	1.80	1.71	1.52	1.37	18.0	17.1	15.2	13.7
West North Central:																		
Kansas City [8]	N	1,000	1,060	1.35	1,960	2.17	3,060	3.12	4,060	3.98	1.27	1.11	1.02	.98	12.7	11.1	10.2	9.8
Minneapolis	X	800	1,330	1.93	2,450	3.03	3,830	4.37	5,080	5.55	1.45	1.24	1.14	1.09	18.2	15.5	14.3	13.7
Omaha	M	550	1,930	1.54	3,560	2.43	5,560	3.53	7,380	4.53	.80	.68	.63	.61	14.5	12.4	11.5	11.2
St. Louis [8]	X	800	1,330	2.03	2,450	3.31	3,830	4.88	5,080	6.17	1.53	1.35	1.27	1.21	19.2	16.9	15.9	15.2
St. Paul	M	550	1,930	1.74	3,560	3.20	5,560	5.00	7,380	6.64	.90	.90	.90	.90	16.4	16.3	16.3	16.4
South Atlantic:																		
Atlanta	N	980	1,080	1.78	2,000	2.70	3,120	3.77	4,140	4.38	1.65	1.35	1.21	1.06	16.8	13.8	12.3	10.8
Baltimore	M	500	2,120	1.80	3,920	3.33	6,120	4.78	8,120	6.08	.85	.85	.78	.75	17.0	17.0	15.6	15.0
Charleston, S. C.	M	550	1,930	2.70	3,560	4.98	5,560	7.18	7,380	9.00	1.40	1.40	1.29	1.22	25.5	25.4	23.5	22.2
Jacksonville	M	535	1,980	4.03	3,660	6.34	5,720	8.20	7,590	9.88	2.04	1.73	1.43	1.30	38.0	32.3	26.8	24.3
Norfolk	M	530	2,000	2.40	3,700	4.36	5,770	6.62	7,660	8.51	1.20	1.18	1.15	1.11	22.6	22.2	21.6	21.0
Richmond	M	525	2,020	2.63	3,730	4.78	5,830	7.43	7,730	9.82	1.30	1.28	1.27	1.27	24.8	24.4	24.3	24.2
Savannah	M	575	1,840	2.30	3,410	4.26	5,320	6.65	7,060	8.83	1.25	1.25	1.25	1.25	21.7	21.7	21.7	21.7
Washington, D. C.	X	600	1,770	1.53	3,270	2.73	5,100	4.08	6,770	5.25	.86	.83	.80	.78	14.4	13.9	13.3	12.9
East South Central:																		
Birmingham	M	500	2,120	1.70	3,920	3.14	6,120	4.90	8,120	6.50	.80	.80	.80	.80	16.0	16.0	16.0	16.0
Louisville	X	900	1,180	.89	2,180	1.39	3,400	2.00	4,510	2.56	.75	.64	.59	.57	8.4	7.1	6.5	6.3
Memphis	N	975	1,090	1.52	2,010	2.49	3,140	3.61	4,160	4.23	1.39	1.24	1.15	1.02	14.3	12.7	11.8	10.4
Mobile	N	960	1,100	2.25	2,040	3.43	3,190	4.75	4,230	5.43	2.05	1.68	1.49	1.28	21.2	17.5	15.5	13.4
West South Central:																		
Dallas	N	1,015	1,040	1.28	1,930	1.88	3,010	2.61	4,000	3.28	1.23	.97	.87	.82	12.1	9.6	8.5	8.1
Houston	N	1,000	1,060	1.19	1,960	1.77	3,060	2.49	4,060	3.14	1.12	.90	.81	.77	11.2	9.0	8.1	7.7
Little Rock [6]	N	1,000	1,060	1.10	1,960	1.61	3,060	2.22	4,060	2.78	1.04	.82	.73	.68	10.4	8.2	7.3	6.8
New Orleans	N	950	1,120	1.26	2,060	2.10	3,220	3.15	4,270	4.09	1.13	1.02	.98	.96	11.9	10.7	10.3	10.1
Mountain:																		
Butte	N	850	1,250	1.11	2,310	1.59	3,600	2.17	4,780	2.70	.89	.69	.60	.56	10.5	8.1	7.1	6.7
Denver [6]	N	830	1,280	2.18	2,360	3.34	3,690	4.19	4,890	4.82	1.70	1.42	1.14	.99	20.6	17.0	13.7	11.9
Salt Lake City [6]	N	865	1,230	2.12	2,270	3.26	3,540	4.15	4,690	4.86	1.72	1.44	1.17	1.04	20.0	16.6	13.6	12.0
Pacific:																		
Los Angeles	N	1,100	960	1.26	1,780	1.82	2,780	2.51	3,690	3.14	1.31	1.02	.90	.85	11.9	9.3	8.2	7.7
Portland, Oreg.	M	570	1,860	2.34	3,440	3.98	5,370	5.96	7,120	7.63	1.26	1.16	1.11	1.07	22.1	20.3	19.5	18.8
San Francisco	N	1,150	920	1.38	1,700	2.05	2,660	2.86	3,530	3.60	1.50	1.21	1.08	1.02	13.0	10.5	9.3	8.9
Seattle [7]	M	500	2,120	3.25	3,920	5.67	6,120	5.33	8,120	6.46	1.53	1.45	.87	.80	30.7	28.9	17.4	15.9

[1] The different kinds of gas are indicated as follows: M, manufactured; N, natural; and X, mixed, manufactured, and natural.
[2] Monthly consumption for each service for a five-room house (1 therm equals 100,000 B. t. u.).
[3] Automatic storage or instantaneous water heater.
[4] Prices include 2-percent sales tax. [5] Minimum charge. [6] Revised figures. [7] Prices include 3-percent sales tax. [8] Prices include 1-percent sales tax.

Percentage changes in the net monthly price of specified amounts of gas from October 15, 1935, to January 15, 1936, are shown in table 8. Data are given in this table for only those cities for which price changes were reported during this period.

Table 8.—Percentage Decrease in the Total Monthly Bill for Specified Amounts of Gas by Cities

Jan. 15, 1936, Compared with Oct. 15, 1935

Region and city	Kind of gas	Heating value per cubic foot in British thermal units	Percentage decrease from Oct. 15, 1935, to Jan. 15, 1936			
			10.6 therms	19.6 therms	30.6 therms	40.6 therms
Middle Atlantic:						
New York:						
Brooklyn	M	537	0	4.3	11.7	16.9
West North Central:						
Minneapolis	X	800	1.5	1.9	2.2	2.3
South Atlantic:						
Washington, D. C.	X	600	1.3	1.4	2.9	4.4
East South Central:						
Mobile:						
Present	N	960	3.4	4.7	5.4	4.7
Mountain:						
Butte	N	850	38.7	30.6	24.4	20.6

Coal Prices in January 1936

THE average retail price of coal in the larger cities of the United States rose slightly between October 15, 1935, and January 15, 1936. Bituminous-coal prices advanced an average of 2.0 percent in the 38 reporting cities. The index rose to 157.8 percent of the 1913 average on January 15, 1936, the highest level since 1931. Pennsylvania anthracite prices rose 1.0 percent for both the stove and the chestnut size. The current index, which is computedoon the basis of the average of price quotations for 25 cities, is still slightly below the level of the corresponding period in 1935.

Retail prices of coal as of the 15th of the month are collected from each of the 51 cities from which retail prices of food are obtained. Prices of bituminous coal of several kinds are received from 38 of the cities. Of these 38 cities, 12 also report on stove and chestnut sizes of Pennsylvania anthracite and 6 report on anthracite from other fields. In addition to the 38 cities there are 13 cities which report prices for Pennsylvania anthracite alone. For each city, prices are shown for those coals sold in considerable quantities for household use. Prices are for curb delivery of the kinds of coal sold to wage earners. Extra charges for handling are not included.

Table 9.—Average Retail Prices of Coal in Large Cities Combined January 1936 and October and January 1935

Article	Average retail price per ton of 2,000 pounds			Relative retail price (1913=100)			Percentage change January 1936, compared with—	
	1936	1935		1936	1935		1935	
	Jan. 15	Oct. 15	Jan. 15	Jan. 15	Oct. 15	Jan. 15	Oct. 15	Jan. 15
Bituminous coal (38 cities)	$8.58	$8.41	$8.37	157.8	154.7	154.0	+2.0	+2.5
Pennsylvania anthracite (25 cities):								
Stove	13.17	13.04	13.21	170.4	168.8	171.0	+1.0	−.3
Chestnut	12.96	12.83	13.01	163.8	162.1	164.4	+1.0	−.3

Details by Regions and Cities

BITUMINOUS-COAL prices rose in 22 of the 38 reporting cities. The increases, which ranged from 0.1 percent in Milwaukee and Salt Lake City to 17.6 percent in Memphis, were most pronounced in the cities of the South Central and Mountain regions. Six of the ten cities reporting lower prices for January are in the North Central areas. Retail prices in each of the 38 cities on January 15, 1936, and October 15 and January 15, 1935, are shown in table 10.

The price of Pennsylvania anthracite, stove size, advanced in 11 cities, remained unchanged in 13, and declined slightly in 1. The chestnut size of Pennsylvania anthracite advanced in 13 cities and remained at the same level in the other 12. The range of price changes for anthracite was from an average decline of 0.2 percent in Philadelphia to a 4.4 percent advance in New York City. Average retail prices in each of the 25 cities on January 15, 1936, October 15 and January 15, 1935, are shown in table 11.

Table 10.—Average Retail Prices of Bituminous Coal per Ton of 2,000 Pounds, by Cities

January 1936 and October and January 1935

Region, city, and grade and size of coal	1936	1935	
	Jan. 15	Oct. 15	Jan. 15
Middle Atlantic:			
Pittsburgh:			
Prepared sizes	$4.40	$4.42	$4.20
East North Central:			
Chicago:			
Prepared sizes:			
High volatile	8.59	8.46	8.32
Low volatile	10.79	10.73	10.19
Run of mine:			
Low volatile	7.91	7.91	7.94
Cincinnati:			
Prepared sizes:			
High volatile	6.26	5.80	6.06
Low volatile	8.18	7.57	7.68
Cleveland:			
Prepared sizes:			
High volatile	6.66	6.62	6.77
Low volatile	9.54	9.41	8.79
Columbus:			
Prepared sizes:			
High volatile	6.18	6.26	6.41
Low volatile	7.97	7.86	7.75
Detroit:			
Prepared sizes:			
High volatile	7.36	7.36	7.17
Low volatile	8.63	8.63	8.52
Run of mine:			
Low volatile	7.73	7.73	7.98
Indianapolis:			
Prepared sizes:			
High volatile	5.76	6.09	6.17
Low volatile	8.56	8.65	8.53
Run of mine:			
Low volatile	7.30	7.40	7.61
Milwaukee:			
Prepared sizes:			
High volatile	8.43	8.42	7.98
Low volatile	11.48	11.22	10.65
Peoria:			
Prepared sizes	7.24	7.33	7.00
Springfield, Ill.:			
Prepared sizes	4.35	4.57	4.54
West North Central:			
Kansas City:			
Prepared sizes	5.85	5.94	6.03
Minneapolis:			
Prepared sizes:			
High volatile	10.68	10.42	10.30
Low volatile	13.36	13.17	12.96
Omaha:			
Prepared sizes	8.62	8.55	8.55
St. Louis:			
Prepared sizes	5.38	5.39	5.99
St. Paul:			
Prepared sizes:			
High volatile	10.49	10.15	10.16
Low volatile	13.39	13.18	13.12
South Atlantic:			
Atlanta:			
Prepared sizes	6.78	6.98	7.02
Baltimore:			
Prepared sizes:			
Low volatile	9.19	9.00	9.06
Run of mine:			
High volatile	7.29	7.29	7.17
South Atlantic—Con.			
Charleston, S. C.:			
Prepared sizes	$9.33	$9.33	$10.00
Jacksonville:			
Prepared sizes	11.13	11.13	11.13
Norfolk:			
Prepared sizes:			
High volatile	7.63	7.50	8.00
Low volatile	9.50	9.50	9.50
Run of mine:			
Low volatile	7.50	7.50	8.00
Richmond:			
Prepared sizes:			
High volatile	8.08	8.08	7.67
Low volatile	9.33	9.33	8.87
Run of mine:			
Low volatile	7.40	7.40	7.73
Savannah:			
Prepared sizes	[1] 9.16	[1] 8.95	[1] 10.03
Washington, D. C.:			
Prepared sizes:			
High volatile	[2] 9.00	[2] 8.81	[2] 9.00
Low volatile	[2] 10.87	[2] 10.52	[2] 10.47
Run of mine:			
Mixed	[2] 8.02	[2] 8.02	[2] 8.02
East South Central:			
Birmingham:			
Prepared sizes	6.36	6.18	6.29
Louisville:			
Prepared sizes:			
High volatile	5.66	5.73	6.13
Low volatile	8.06	8.11	8.11
Memphis:			
Prepared sizes	7.43	6.32	7.19
Mobile:			
Prepared sizes	8.99	8.59	9.01
West South Central:			
Dallas:			
Prepared sizes	10.29	10.14	10.25
Houston:			
Prepared sizes	11.71	11.43	11.73
Little Rock:			
Prepared sizes	8.41	8.13	8.17
New Orleans:			
Prepared sizes	10.60	9.93	10.00
Mountain:			
Butte:			
Prepared sizes	10.00	9.77	9.76
Denver:			
Prepared sizes	7.69	7.08	7.73
Salt Lake City:			
Prepared sizes	7.61	7.60	7.17
Pacific:			
Los Angeles:			
Prepared sizes	16.74	16.74	16.78
Portland, Oreg.:			
Prepared sizes	12.39	12.39	11.53
San Francisco:			
Prepared sizes	16.33	16.35	15.21
Seattle:			
Prepared sizes	10.16	10.12	9.66

[1] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above prices.

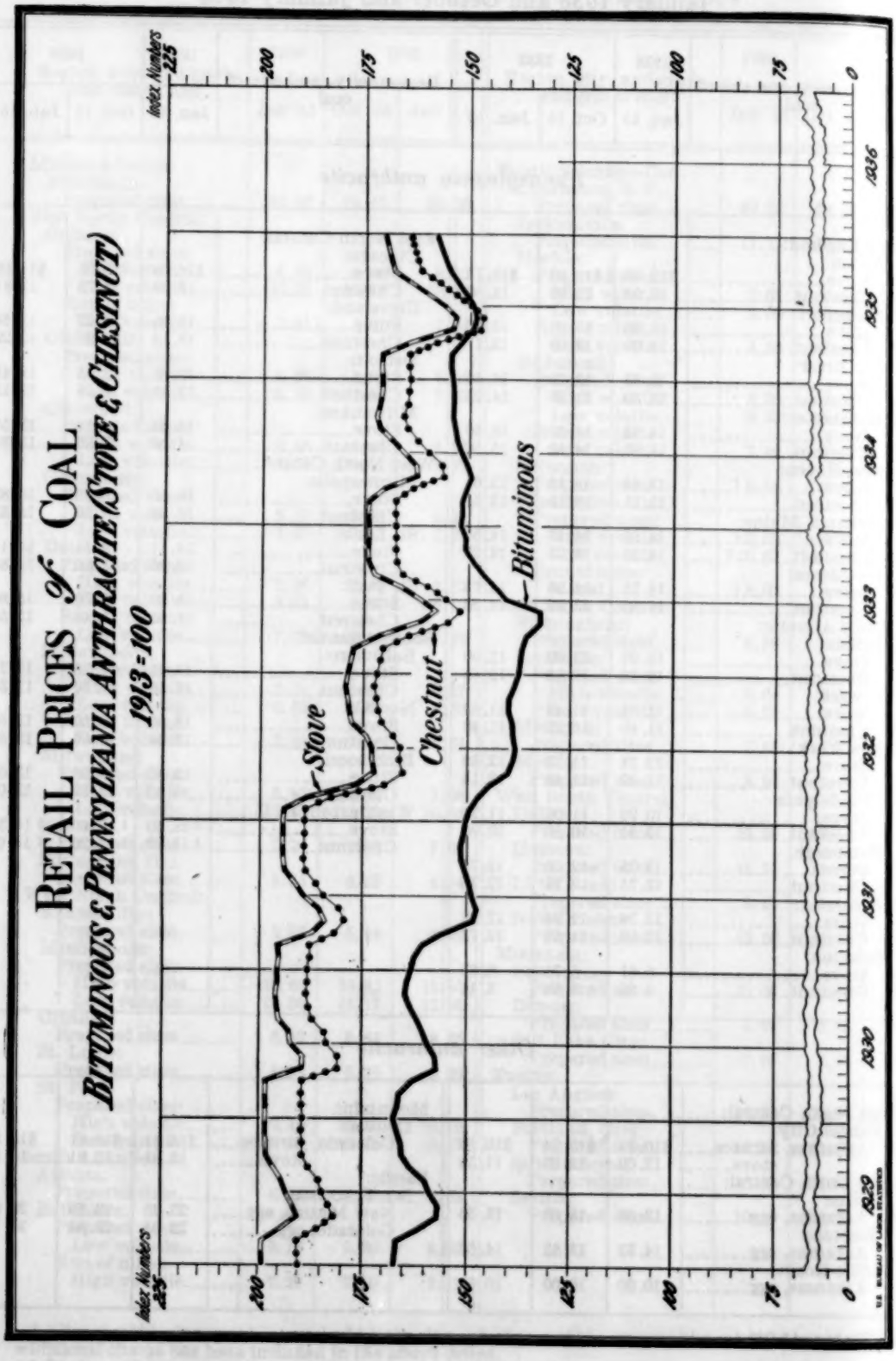
[2] Per ton of 2,240 pounds.

Table 11.—Average Retail Prices of Anthracite Coal per Ton of 2,000 Pounds, by Cities

January 1936 and October and January 1935

Region, city, and size of coal	1936	1935		Region, city, and size of coal	1936	1935	
	Jan. 15	Oct. 15	Jan. 15		Jan. 15	Oct. 15	Jan. 15
Pennsylvania anthracite							
New England:				East North Central:			
Boston:				Chicago:			
Stove	$12.90	$12.90	$13.75	Stove	$14.04	$13.98	$14.06
Chestnut	12.90	12.90	13.50	Chestnut	13.79	13.73	13.81
Bridgeport:				Cleveland:			
Stove	13.00	13.00	13.17	Stove	13.39	13.22	12.54
Chestnut	13.00	13.00	13.17	Chestnut	13.13	12.97	12.29
Fall River:				Detroit:			
Stove	13.75	13.75	14.50	Stove	12.71	12.45	12.45
Chestnut	13.50	13.50	14.25	Chestnut	12.45	12.19	12.19
Manchester:				Milwaukee:			
Stove	14.83	14.50	15.50	Stove	14.25	14.11	13.55
Chestnut	14.83	14.50	15.50	Chestnut	14.00	13.86	13.30
New Haven:				West North Central:			
Stove	13.15	13.15	13.65	Minneapolis:			
Chestnut	13.15	13.15	13.65	Stove	16.20	15.75	15.80
Portland, Maine:				Chestnut	15.95	15.50	15.55
Stove	14.50	14.50	14.50	St. Louis:			
Chestnut	14.25	14.25	14.25	Stove	14.11	14.11	14.11
Providence:				Chestnut	13.86	13.86	13.86
Stove	14.75	14.25	14.75	St. Paul:			
Chestnut	14.50	13.95	14.50	Stove	16.20	15.70	15.80
Middle Atlantic:				Chestnut	15.95	15.45	15.55
Buffalo:				South Atlantic:			
Stove	13.00	13.00	12.90	Baltimore:			
Chestnut	12.75	12.75	12.65	Stove	11.75	11.75	11.75
Newark:				Chestnut	11.50	11.50	11.54
Stove	11.65	11.48	11.65	Norfolk:			
Chestnut	11.40	11.22	11.40	Stove	13.50	13.50	13.50
New York:				Chestnut	13.50	13.50	13.50
Stove	12.24	11.73	12.39	Richmond:			
Chestnut	11.99	11.48	12.14	Stove	13.50	13.50	13.00
Philadelphia:				Chestnut	13.50	13.50	13.00
Stove	10.92	11.00	11.20	Washington, D. C.:			
Chestnut	10.54	10.50	10.96	Stove	[1] 13.50	[1] 13.50	[1] 14.30
Pittsburgh:				Chestnut	[1] 13.20	[1] 13.20	[1] 14.00
Stove	12.75	12.75	12.75				
Chestnut	12.75	12.75	12.75				
Rochester:							
Stove	12.24	12.24	12.98				
Chestnut	12.00	11.88	12.73				
Scranton:							
Stove	8.81	8.78	8.63				
Chestnut	8.56	8.53	8.44				
Other anthracite							
West North Central:				Mountain:			
Kansas City:				Denver:			
Arkansas, furnace	$10.74	$10.74	$10.50	Colorado, furnace	$15.81	$15.81	$15.50
stove	12.00	12.00	11.50	stove	15.81	15.81	15.50
West South Central:				Pacific:			
Dallas:				San Francisco:			
Arkansas, egg	13.00	13.00	13.50	New Mexico, egg	23.95	23.69	25.63
Houston:				Colorado, egg	23.95	23.69	25.11
Arkansas, egg	14.33	13.83	14.50				
Little Rock:							
Arkansas, egg	10.00	10.00	10.50				

[1] Per ton of 2,240 pounds.


RETAIL PRICES of COAL
BITUMINOUS & PENNSYLVANIA ANTHRACITE (STOVE & CHESTNUT)
1913=100
Index Numbers
225
200
175
150
125
100
75
0
Stove
Chestnut
Bituminous
1929
1930
1931
1932
1933
1934
1935
1936

Coal Prices 1926 to January 1936

RETAIL prices of coal have been collected from the cities covered in the retail-food-price study. For the years 1913–19 prices were collected semiannually on January 15 and July 15. From June 1920 to July 1935 prices were collected on the 15th of each month. Beginning with July 1935 it is planned to collect these prices on the 15th of January, April, July, and October of each year.

Table 12 shows, for large cities combined, average prices of bituminous coal and of Pennsylvania white-ash anthracite, stove and chestnut sizes, on January 15 and July 15, 1926 to 1933, and quarterly from January 15, 1934, to January 15, 1936.

The accompanying chart shows the trend in retail prices of stove and chestnut sizes of Pennsylvania anthracite in 25 cities combined and of bituminous coal in 38 cities combined. The trend is shown by months from January 15, 1929, to July 15, 1935, inclusive, and quarterly to January 15, 1936.

Table 12.—Average Retail Prices of Coal in Large Cities Combined [1]

January 1926 to January 1936, inclusive

Year and month	Average price, 2,000 pounds			Relative price (1913=100.0)			Year and month	Average price, 2,000 pounds			Relative price (1913=100.0)		
	Bituminous	Pennsylvania anthracite		Bituminous	Pennsylvania anthracite			Bituminous	Pennsylvania anthracite		Bituminous	Pennsylvania anthracite	
		Stove	Chestnut		Stove	Chestnut			Stove	Chestnut		Stove	Chestnut
1926: Jan.	$9.74	[2]	[2]	179.3	[2]	[2]	1933: Jan.	$7.46	$13.82	$13.61	137.3	178.9	171.9
July	8.70	$15.43	$15.19	160.1	199.7	191.9	July	7.64	12.47	12.26	140.7	161.3	155.0
1927: Jan.	9.96	15.66	15.42	183.3	202.7	194.8	1934: Jan.	8.24	13.44	13.25	151.6	174.0	167.4
July	8.91	15.15	14.81	163.9	196.1	187.1	Apr.	8.18	13.14	12.94	150.5	170.1	163.5
1928: Jan.	9.30	15.44	15.08	171.1	199.8	190.6	July	8.23	12.79	12.60	151.5	165.5	159.2
July	8.69	14.91	14.63	159.9	192.9	184.9	Oct.	8.35	13.32	13.11	153.6	172.4	165.7
1929: Jan.	9.09	15.38	15.06	167.2	199.1	190.3	1935: Jan.	8.37	13.21	13.01	154.0	171.0	164.4
July	8.62	14.94	14.63	158.6	193.4	184.8	Apr.	8.24	12.67	12.47	151.7	164.0	157.6
1930: Jan.	9.11	15.33	15.00	167.6	198.4	189.5	July	8.12	12.06	11.86	149.3	156.1	149.9
July	8.65	14.84	14.53	159.1	192.1	183.6	Oct.	8.41	13.04	12.83	154.7	168.8	162.1
1931: Jan.	8.87	15.12	14.88	163.2	195.8	188.1	1936: Jan.	8.58	13.17	12.96	157.8	170.4	163.8
July	8.09	14.61	14.59	148.9	189.1	184.3							
1932: Jan.	8.17	15.00	14.97	150.3	194.2	189.1							
July	7.50	13.37	13.16	138.0	173.0	166.2							

[1] The prices in the table are unweighted averages of quotations from 38 cities for bituminous coal and from 25 cities for Pennsylvania anthracite.
[2] Insufficient data.

WHOLESALE PRICES

Wholesale Prices in January 1936

Summary

WHOLESALE commodity prices tended moderately downward during January. From an index of 80.9 percent of the 1926 average for the week ended January 4, the level of all commodities fell to 80.2 for the last week in the month, a decline of 0.9 percent. Compared with the corresponding week of a year ago, the all-commodity index showed a gain of 1.5 percent.

Sharp decreases in wholesale prices of farm products, foods, and textile products were largely responsible for the decline in the general index during the month.

Table 1 compares the level of wholesale commodity prices for the week of January 25 with the first week of the current year and with the corresponding week of 1935.

Table 1.—Index Numbers of Wholesale Prices by Groups of Commodities, January 25, 1936, January 4, 1936, and January 26, 1935

[1926=100]

Groups	Jan. 25, 1936	Jan. 4, 1936	Percentage change	Jan. 26, 1935	Percentage change
All commodities	80.2	80.9	−0.9	79.0	+1.5
Farm products	78.1	79.3	−1.5	79.0	−1.1
Foods	82.7	85.8	−3.6	80.9	+2.2
Hides and leather products	97.7	96.6	+1.1	86.8	+12.6
Textile products	70.8	72.9	−2.9	70.0	+1.1
Fuel and lighting materials	77.0	75.5	+2.0	74.3	+3.6
Metals and metal products	86.1	85.9	+.2	85.2	+1.1
Building materials	85.3	85.2	+.1	84.9	+.5
Chemicals and drugs	80.6	80.1	+.6	80.0	+.8
House-furnishing goods	82.3	82.2	+.1	82.1	+.2
Miscellaneous commodities	67.8	67.5	+.4	70.6	−4.0
All commodities other than farm products and foods	79.0	78.8	+.3	77.9	+1.4
All commodities other than farm	80.6	81.2	−.7	79.0	+2.0
Raw materials	78.0	78.1	−.1	(1)	----------
Semimanufactured	74.7	75.3	−.8	(1)	----------
Finished	82.3	83.2	−1.1	(1)	----------

[1] Not computed.

During the interval—January 4 to January 25—fuel and lighting materials increased 2.0 percent, hides and leather products advanced 1.1 percent, and chemicals and drugs rose 0.6 percent. Increases over

this period for metals and metal products, building materials, house-furnishing goods, and miscellaneous commodities were less than 0.5 percent. From January 4 to 25 industrial commodities represented by the group of "all commodities other than farm products and processed foods" advanced 0.3 percent. All commodities other than farm products (nonagricultural) declined 0.7 percent. Raw materials fell fractionally during this period. Semimanufactured articles declined 0.8 percent and finished products dropped 1.1 percent.

Compared with the corresponding week of 1935, the January 25, 1936, farm product index—78.1—showed a decrease of 1.1 percent. Miscellaneous commodities have fallen 4.0 percent over the year period, due primarily to lower prices for cattle feed and crude rubber.

The marked rise of 12.6 percent over the past year brings the index for the hides and leather products group to 97.7 percent of the 1926 average—more than 10 points above that for any of the other commodity groups. Fuel and lighting materials rose 3.6 percent during the year; foods advanced 2.2 percent; textile products and metals and metal products, 1.1 percent. Minor increases were also recorded by the building materials, chemicals and drugs, and house-furnishing goods groups. The group of "all commodities other than farm products" (nonagricultural) advanced 2.0 percent during the year, and the industrial commodity group has risen 1.4 percent.

Weekly Fluctuations

FROM an index number of 80.6 for the last week of 1935, wholesale commodity prices advanced to 80.9 for the first week of 1936, representing an increase of 0.4 percent. Two successive declines followed, and for the week ended January 18 the all-commodity index stood at 80.2. It remained unchanged during the week ended January 25, a cumulative decline of 0.9 percent for the month.

The farm-products index followed precisely the same trend as the all-commodity index, but changes were more pronounced. Between the last week of December and the first week of January, prices of farm products advanced 1.1 percent. Declines amounting to 1.5 percent followed for the 2 weeks succeeding. During the last week of January the agricultural commodity index remained unchanged at 78.1 percent of the 1926 average.

Wholesale food prices declined sharply throughout January. The index fell from 85.8 to 82.7, representing a decline of 3.6 percent for the month. Cereal products and meats registered net decreases of 7.0 percent and 4.7 percent, respectively, during the 4 weeks covered. Average prices of dairy products and fruits and vegetables also followed a downward course, but the drop in these two subgroups was moderate.

By contrast, prices of hides and leather products continued upward. The index for the third week in January—97.8—is the highest point reached since September 1930. During the last week of the month a slight recession in prices of leather caused the index for the group as a whole to decline to 97.7 percent of the 1926 level.

Declining prices of cotton goods and raw silk largely accounted for a decrease of 2.9 percent in the textile products group between the weeks of January 4 and 25. The tendency in prices of clothing, knit goods, and certain other textile products was also slightly lower. Woolen and worsted goods, on the other hand, advanced during the week ended January 25.

The index for the fuel and lighting materials group declined fractionally between the first and second weeks of January due to lower prices for anthracite and petroleum products. Higher prices for bituminous-coal and petroleum products reversed the movement during the last 2 weeks of the month. The index for the group as a whole advanced from 75.5 to 77.0 during the month.

Metals and metal products maintained the steadiness which has been characteristic of this group for some time, with the tendency moderately upward. Iron and steel and plumbing and heating fixtures advanced during the latter part of the month. Nonferrous metals rose during the first 3 weeks, then dropped in the last week losing the gain of the preceding period. The index for the metals and metal products group as a whole stood at 86.1 for the week ended January 25.

Following a slight advance between the last week of December and the first week of January, the building materials group remained steady through the week ended January 18. Rising prices for lumber caused the group index to advance slightly during the week ended January 25.

A steady upward course was followed throughout January by the chemicals and drugs group due to rising prices for chemicals and mixed fertilizers. Wholesale prices of drugs and pharmaceuticals declined during the last week of January.

The index for the house-furnishing goods group rose to 82.4 for the week ended January 11. A minor decline was recorded for the third week of the month. During the week ended January 25 the movement was again upward, bringing the index for the group to 82.3 percent of the 1926 average.

Cattle feed prices declined steadily throughout January. Crude rubber, on the other hand, rose constantly. Average wholesale prices of paper and pulp and certain other miscellaneous commodities became firmer during the latter part of the month.

The index for the large group of "all commodities other than farm products and processed foods" advanced from 78.8 to 79.0 from the

first to the last week of January. From an index of 78.1 for the week ending January 4, raw materials fell to 77.6 for the second week of the month. During the last two weeks of January, two successive but small increases were recorded and the index rose to 78.0. The index for the semimanufactured group dropped throughout the month, registering a net decline of 0.8 percent. Finished products advanced slightly during the first week of January. During the second and third weeks, however, the trend was reversed and the index fell to 82.3, remaining at this level during the next week.

Index numbers for the main groups of commodities for each week of 1936; December 1935; and for January 26, 1935; and January 27, 1934, are shown in table 2.

Table 2.—Weekly Index Numbers of Wholesale Prices by Groups of Commodities

[1926=100]

Commodity groups	Jan. 25, 1936	Jan. 18, 1936	Jan. 11, 1936	Jan. 4, 1936	Dec. 28, 1935	Dec. 21, 1935	Dec. 14, 1935	Dec. 7, 1935	Jan. 26, 1935	Jan. 27, 1934
All commodities	80.2	80.2	80.5	80.9	80.6	80.4	80.8	80.9	79.0	72.4
Farm products	78.1	78.1	78.3	79.3	78.4	77.3	79.2	79.1	79.0	59.5
Foods	82.7	82.9	84.6	85.8	85.3	85.3	85.8	86.4	80.9	65.0
Hides and leather products	97.7	97.8	97.7	96.6	96.4	96.2	95.4	94.8	86.8	90.4
Textile products	70.8	71.0	72.4	72.9	72.8	72.7	72.8	72.9	70.0	76.4
Fuel and lighting materials	77.0	76.4	75.4	75.5	75.6	75.7	75.7	75.9	74.3	74.0
Metals and metal products	86.1	86.0	86.0	85.9	85.9	86.2	86.3	86.4	85.2	84.7
Building materials	85.3	85.2	85.2	85.2	85.1	85.2	85.3	85.4	84.9	86.2
Chemicals and drugs	80.6	80.3	80.2	80.1	80.0	80.2	80.5	80.7	80.0	75.1
House-furnishing goods	82.3	82.2	82.4	82.2	82.2	82.2	82.2	82.2	82.1	81.7
Miscellaneous commodities	67.8	67.8	67.8	67.5	67.5	67.5	67.4	67.4	70.6	68.1
All commodities other than farm products and foods	79.0	78.9	78.8	78.8	78.8	78.8	78.9	78.9	77.9	78.5
All commodities other than farm products	80.6	80.6	80.9	81.2	81.1	81.0	81.1	81.3	79.0	75.1
Raw materials	78.0	77.9	77.6	78.1	77.6	76.9	78.0	77.9	(1)	(1)
Semimanufactured	74.7	74.7	75.0	75.3	74.9	75.3	75.4	75.6	(1)	(1)
Finished products	82.3	82.3	82.9	83.2	83.1	83.0	83.1	83.4	(1)	(1)

[1] Not computed.

Wholesale Price Level in January

COMPARED with December the index of wholesale commodity prices for January—80.6 percent of the 1926 average—shows a decrease of 0.4 percent. This brings the all-commodity index back to the level of November 1935, but wholesale prices are still 2.3 percent above the corresponding month of a year ago.

The decline in the January index was primarily the result of sharp decreases in wholesale prices of foods and textile products, although farm products, metals and metal products, and chemicals and drugs declined fractionally. Hides and leather products, on the other hand, advanced 1.8 percent. Smaller increases were shown for the fuel and lighting materials, building materials, housefurnishing goods, and miscellaneous commodities groups.

Table 3 summarizes the changes in wholesale prices during the month interval by commodity groups.

Table 3.—Number of Series Changing in Price from December 1935 to January 1936

Groups	Increases	Decreases	No change
All commodities	182	182	420
Farm products	40	22	5
Foods	38	48	36
Hides and leather products	20	4	17
Textiles	15	48	49
Fuel and lighting	13	9	2
Metals	14	5	111
Building materials	10	15	61
Chemicals and drugs	8	7	74
House-furnishings	13	19	29
Miscellaneous	11	5	36

The raw-materials group, which includes basic farm products, hides and skins, hemp, jute, sisal, crude petroleum, crude rubber, scrap steel, and similar commodities, advanced 0.5 percent during January. The current index for this group—78.1—was 2.0 percent above that for January 1935. "Finished products", including more than 500 manufactured articles, declined 0.8 percent from December to January, the January index for this group, however, being 2.0 percent above the corresponding month of last year.

"Semimanufactured articles", including raw sugar, leather, iron and steel bars, pig iron, and other semiprocessed items, decreased 0.5 percent during the month. Nevertheless, the January index was 5.0 percent higher than a year ago.

The index for the group "all commodities other than farm products and processed foods"—78.8—representing industrial commodities, rose 0.1 percent in January and was 1.4 percent above a year ago. Prices of all commodities other than farm products (nonagricultural) declined 0.5 percent in January but were 2.5 percent above a year ago.

A decline of 0.1 percent was recorded for the farm products group during the month due to lower prices for steers, lambs, cotton, eggs, lemons, oranges, peanuts, and sweetpotatoes. Wholesale prices of grains, calves, cows, hogs, ewes, wethers, live poultry, fresh apples, tobacco, onions, and wool were higher. Farm products prices in January were 0.8 percent above those of a year ago.

The index for the foods group fell 2.6 percent in January but was still 4.5 percent higher than in 1935. Declining prices for cheese, flour, canned and dried fruits, canned vegetables, lamb, cured and fresh pork, lard, oleo oils, and vegetable oils were mainly responsible for the decrease. Average prices of butter, evaporated and powdered milk, bread in the New York market, fresh beef at Chicago, mutton, veal, dressed poultry, coffee, pepper, salt, and raw sugar were higher.

Prices of hides and leather products continued upward during the month, reaching a new 5-year high. The January index for this group—97.1—was 12.6 percent above a year ago. Shoes, hides and skins, and other leather products rose during the month. Leather prices, on the other hand, were fractionally lower.

A decline of 2.1 percent was recorded by the textile products group. All subgroups except woolen and worsted goods shared in the decline.

Advancing prices for coke and petroleum products were the factors contributing to the 0.7 percent rise in the fuel and lighting materials group. Average prices of anthracite coal were slightly lower and bituminous coal remained unchanged.

Metals and metal products declined 0.1 percent in January as a result of lower prices for antimony, bar silver, solder, and pig tin. The iron and steel and plumbing and heating subgroups recorded minor increases. Agricultural implements and motor vehicles were steady.

A moderate increase was recorded in the index for the building materials group during January. Wholesale prices of lumber and certain other building materials were higher. Average prices of brick and tile and paint and paint materials were lower. Prices of cement and structural steel remained at the December level.

Weakening prices of chemicals, drugs and pharmaceuticals, and fertilizer materials caused the index for the chemicals and drugs group to decline 0.1 percent during the month. The mixed fertilizer subgroup was slightly higher.

The index for the house-furnishing goods group rose to 81.4 percent of the 1926 average. Both furniture and furnishings shared in the advance.

During January cattle feed prices fell 3.1 percent. Crude rubber, on the contrary, rose 9.6 percent. A fractional increase was recorded in paper and pulp.

The index of the Bureau of Labor Statistics is composed of 784 price series weighted according to their relative importance in the country's markets and based on average prices for the year 1926 as 100.

The index numbers of wholesale prices for the groups and subgroups of commodities for January 1936 and for comparable months of other recent years are given in table 4.

Table 4.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities for January 1936, in Comparison with December 1935, and January of Each of the Past 7 Years

[1926=100]

Groups and subgroups	January 1936	December 1935	January 1935	January 1934	January 1933	January 1932	January 1931	January 1930	January 1929
All commodities	80.6	80.9	78.8	72.2	61.0	67.3	78.2	92.5	95.9
Farm products	78.2	78.3	77.6	58.7	42.6	52.8	73.1	101.0	105.9
Grains	78.9	76.6	88.8	63.7	32.9	46.7	62.4	93.8	98.3
Livestock and poultry	89.1	87.4	73.3	41.1	37.8	53.4	75.2	100.5	102.1
Other farm products	70.8	72.8	76.6	67.4	48.7	54.8	75.3	103.9	111.3
Foods	83.5	85.7	79.9	64.3	55.8	64.7	80.7	97.3	98.9
Butter, cheese, and milk	84.2	83.7	83.5	65.0	55.2	67.8	83.7	97.2	108.8
Cereal products	92.1	97.2	91.6	85.8	60.9	71.0	75.7	87.6	89.0
Fruits and vegetables	62.2	63.7	62.8	68.0	53.0	62.2	76.9	103.9	87.4
Meats	94.9	97.5	81.6	48.9	49.5	61.9	88.4	106.2	105.7
Other foods	75.5	77.5	76.2	64.0	60.1	61.9	74.5	91.0	95.5
Hides and leather products	97.1	95.4	86.2	89.5	68.9	79.3	88.7	105.1	113.4
Boots and shoes	100.5	100.1	97.1	98.5	83.3	88.8	95.1	103.8	106.7
Hides and skins	100.5	96.5	71.1	77.2	43.0	49.0	64.4	104.2	124.1
Leather	87.3	87.6	74.3	79.9	57.1	77.5	90.8	108.3	120.8
Other leather products	95.3	87.1	85.0	87.0	78.2	98.9	102.3	106.1	107.5
Textile products	71.7	73.2	70.3	76.5	51.9	59.6	71.3	87.2	92.5
Clothing	80.8	81.0	78.4	87.5	61.9	69.6	79.1	88.9	91.6
Cotton goods	80.4	86.0	84.1	86.5	50.1	55.8	73.5	94.7	100.4
Knit goods	61.8	62.2	63.5	70.6	48.4	55.8	64.8	85.9	89.9
Silk and rayon	33.5	33.7	28.6	29.7	27.0	37.7	49.0	75.2	84.3
Woolen and worsted goods	81.4	81.0	73.8	84.3	53.4	63.3	73.7	84.9	91.4
Other textile products	67.8	68.1	68.8	76.9	66.3	70.7	77.2	87.9	94.5
Fuel and lighting materials	75.1	74.6	72.9	73.1	66.0	67.9	73.3	81.7	84.2
Anthracite	82.3	82.9	82.3	81.5	88.7	94.8	88.9	91.2	91.6
Bituminous coal	98.7	98.7	96.3	90.8	79.8	84.4	88.1	91.9	93.7
Coke	92.7	89.6	86.4	83.5	75.3	80.5	83.8	84.1	84.3
Electricity	(1)	84.9	89.9	92.3	103.2	107.5	99.9	96.9	96.1
Gas	(1)	84.5	87.6	90.8	96.7	98.6	95.8	92.6	92.3
Petroleum products	54.4	52.8	48.8	51.1	38.7	38.8	50.4	67.3	71.9
Metals and metal products	86.7	86.8	85.8	85.5	78.2	81.8	86.9	97.2	100.1
Agricultural implements	94.6	94.6	92.7	85.2	84.5	85.5	94.4	97.3	99.2
Iron and steel	87.1	86.9	85.7	83.6	78.5	79.9	85.5	92.0	94.3
Motor vehicles	93.6	93.6	94.1	96.9	91.3	95.3	95.1	103.1	107.3
Nonferrous metals	69.7	70.6	67.6	66.1	46.4	55.4	69.5	101.3	101.2
Plumbing and heating	71.7	71.1	68.0	72.5	62.8	74.1	87.4	92.2	99.7
Building materials	85.7	85.5	84.9	86.3	70.1	74.8	83.8	94.3	95.5
Brick and tile	88.4	88.9	91.1	86.6	74.9	79.3	87.0	93.1	95.1
Cement	95.5	95.5	93.9	93.9	81.2	75.2	90.3	90.4	94.6
Lumber	82.2	81.5	79.9	87.4	55.9	65.6	76.4	92.3	93.1
Paint and paint materials	79.6	80.0	79.0	78.4	68.1	75.4	83.2	95.4	92.7
Plumbing and heating	71.7	71.1	68.0	72.5	62.8	74.1	87.4	92.2	99.7
Structural steel	92.0	92.0	92.0	86.8	81.7	77.3	83.0	97.0	97.0
Other building materials	90.2	90.0	90.3	89.8	79.4	81.0	87.8	96.9	98.0
Chemicals and drugs	80.5	80.6	79.3	74.4	71.6	75.7	84.5	93.0	95.0
Chemicals	87.6	87.7	84.5	78.8	79.3	80.6	88.3	98.0	100.7
Drugs and pharmaceuticals	74.0	74.7	73.1	65.2	54.9	60.6	65.3	69.6	72.0
Fertilizer materials	64.4	64.5	66.5	68.4	62.3	69.9	81.4	89.8	94.6
Mixed fertilizers	68.8	67.7	73.3	71.2	62.7	75.5	90.4	97.1	97.1
House-furnishing goods	81.4	81.0	81.2	80.8	72.9	77.7	88.3	93.8	93.9
Furnishings	84.8	84.7	84.3	82.9	73.5	76.1	84.9	92.9	93.4
Furniture	77.9	77.1	78.2	78.8	72.3	79.5	92.1	94.8	94.4
Miscellaneous	67.8	67.5	70.7	67.5	61.2	65.6	72.2	81.3	82.7
Automobile tires and tubes	45.0	45.0	47.5	43.2	44.6	39.7	47.2	53.0	56.5
Cattle feed	68.6	70.8	116.2	68.5	38.2	53.0	75.0	113.5	134.8
Paper and pulp	79.8	79.2	81.5	83.0	72.0	78.0	83.6	88.1	88.9
Rubber, crude	29.8	27.2	26.5	18.9	6.5	9.3	17.1	31.1	40.8
Other miscellaneous	80.4	80.2	80.4	81.8	76.8	85.2	89.9	99.3	96.8
Raw materials	78.1	77.7	76.6	64.1	50.2	58.3	72.7	94.0	98.8
Semimanufactured articles	74.8	75.2	71.2	71.9	56.9	63.1	73.7	90.2	94.6
Finished products	82.4	83.1	80.8	76.0	66.7	72.1	81.5	92.1	94.7
Nonagricultural commodities	80.9	81.3	78.9	75.0	64.9	70.3	79.3	90.7	93.8
All commodities other than farm products and foods	78.8	78.7	77.7	78.3	67.3	71.7	79.0	89.5	92.5

[1] Data not yet available.

Monthly Average Wholesale Prices and Index Numbers, Individual Commodities

TEH table showing monthly average wholesale price and index numbers of individual commodities formerly appearing in the monthly pamphlet, Wholesale Prices, is published semiannually instead of monthly. The December 1935 issue showed information for the last 6 months of, and the average for, the year 1935. The monthly figures will be furnished upon request.

Wholesale Prices in the United States and in Foreign Countries

IN THE following table the index numbers of wholesale prices of the Bureau of Labor Statistics of the United States Department of Labor, and those in certain foreign countries, have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the original sources from which the information has been drawn, in certain countries being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, and the kind and number of articles included, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926–34, inclusive, and by months from January 1933 through March 1936.

Index Numbers of Wholesale Prices in the United States and in Foreign Countries

Country	United States	Australia	Austria	Belgium	Bulgaria	Canada	Chile	China
Computing agency	Bureau of Labor Statistics	Bureau of Census and Statistics	Federal Statistical Bureau	Ministry of Labor and Social Welfare	General Statistical Bureau	Dominion Bureau of Statistics	General Statistical Bureau	National Tariff Commission, Shanghai
Base period	1926 (100)	1911 (1000)	January–June 1914 (100)	April 1914 (100)	1926 (100)	1926 (100)	1913 (100)	1926 (100)
Commodities	784	92	47	(Paper) 125	(Gold) 55	567 [1]	(Paper)	(Silver) 155 [2]
1926	100.0	1832	123	744	100.0	100.0	----------	100.0
1927	95.4	1817	133	847	102.4	97.7	----------	104.4
1928	96.7	1792	130	843	109.8	96.4	195.5	101.7
1929	95.3	1803	130	851	117.0	95.6	192.4	104.5
1930	86.4	1596	117	744	94.6	86.6	166.9	114.8
1931	73.0	1428	108	626	79.1	72.1	152.2	126.7
1932	64.8	1411	112	532	70.3	66.7	230.4	112.4
1933	65.9	1409	108	501	61.8	67.1	346.0	103.8
1934	74.9	1471	110	473	63.6	71.6	343.6	97.1
1934								
January	72.2	1456	109	484	59.1	70.7	328.6	97.2
February	73.6	1452	110	483	62.6	72.1	331.4	98.0
March	73.7	1459	113	478	61.7	72.1	336.9	96.6
April	73.3	1471	112	474	61.6	71.3	342.6	94.6
May	73.7	1456	110	470	63.0	71.1	343.1	94.9
June	74.6	1463	110	472	64.2	72.0	351.7	96.7
July	74.8	1483	110	471	64.2	72.0	352.5	97.1
August	76.4	1500	110	474	65.7	72.2	354.1	99.8
September	77.6	1493	108	470	65.5	71.9	352.6	97.3
October	76.5	1493	108	467	66.2	71.3	344.2	96.1
November	76.5	1470	109	466	64.8	71.1	343.3	98.3
December	76.9	1459	109	468	63.8	71.1	341.8	99.0
1935								
January	78.8	1450	110	472	64.5	71.4	346.7	99.4
February	79.5	1451	109	466	64.3	71.9	340.3	99.9
March	79.4	1443	109	464	64.2	72.0	336.7	96.4
April	80.1	1444	109	531	66.0	72.5	334.9	95.9
May	80.2	1458	110	552	64.7	72.3	339.3	95.0
June	79.8	1466	111	555	64.3	71.5	339.6	92.1
July	79.4	1479	112	553	64.2	71.5	342.4	90.5
August	80.5	1498	111	552	64.0	71.6	343.3	91.9
September	80.7	1495	110	560	64.4	72.3	346.2	91.1
October	80.5	1498	109	574	66.6	73.1	348.7	94.1
November	80.6	----------	109	582	66.9	72.7	351.5	103.3
December	80.9	----------	109	579	----------	72.6	----------	103.3
1936								
January	80.6	----------	108	581	----------	72.9	----------	104.3
February	80.6	----------	----------	----------	----------	----------	----------	----------

[1] Revised for commodities since January 1934.
[2] Quotations, 154 since January 1932.

Index Numbers of Wholesale Prices in the United States and in Foreign Countries—Continued

Country	Czechoslovakia	Denmark	Finland	France	Germany	India	Italy	Japan	Netherlands
Computing agency	Central Bureau of Statistics	Statistical Department	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Department, etc.,[3] Calcutta	Riccardo Bachi	Bank of Japan, Tokio	Central Bureau of Statistics
Base period	July 1914 (100)	1913 (100)	1926 (100)	1913 (100)	1913 (100)	July 1914 (100)	1913 (100)	October 1900 (100)	1926–30 (100) new series
Commodities	(Gold) 69	118	120	(Paper) 126	400	72	(Paper) 140	56	(Plus) 269
1926	[1] 944.0	163	100	695	134.4	148	602.0	236.7	105.8
1927	[1] 968.0	153	101	642	137.6	148	495.3	224.6	102.8
1928	[1] 969.0	153	102	645	140.0	145	461.6	226.1	102.2
1929	[1] 913.0	150	98	627	137.2	141	445.3	219.8	99.7
1930	118.6	130	90	554	124.6	116	383.0	181.0	89.6
1931	107.5	114	84	502	110.9	96	328.4	153.0	76.3
1932	99.5	117	90	427	96.5	91	303.7	161.1	64.6
1933	96.3	125	89	398	93.3	87	279.5	179.5	62.9
1934	83.9	132	90	376	98.4	89	273.0	177.6	63.0
1934									
January	94.6	130	90	404	96.3	90	275.7	175.5	----
February	94.3	131	90	400	96.2	89	274.6	177.5	----
March	[2] 81.1	129	90	394	95.9	88	275.2	176.9	----
April	[2] 80.8	128	89	387	95.8	89	273.1	176.9	----
May	[2] 80.2	128	89	381	96.2	90	272.6	176.2	----
June	[2] 80.5	128	89	379	97.2	90	272.2	174.5	----
July	[2] 85.1	129	89	373	98.9	89	269.8	174.1	----
August	[2] 83.9	134	90	370	100.1	89	271.4	176.9	----
September	[2] 84.0	135	90	365	100.4	89	269.9	179.2	----
October	[2] 83.8	135	90	357	101.0	89	271.8	181.8	----
November	[2] 84.2	136	90	356	101.2	88	274.1	181.1	----
December	[2] 84.2	135	90	344	101.0	88	275.9	181.1	----
1935									
January	[2] 84.5	135	90	350	101.1	94	277.2	181.5	61.7
February	[2] 85.1	135	90	343	100.9	90	278.4	184.1	61.6
March	[2] 85.3	132	90	335	100.7	87	288.3	183.5	60.6
April	[2] 84.9	132	90	336	100.8	88	296.1	182.3	60.9
May	[2] 85.7	131	90	340	100.8	91	302.3	182.4	60.9
June	[2] 86.1	130	90	330	101.2	91	307.8	180.2	60.9
July	[2] 88.0	131	90	322	101.8	91	310.1	180.2	60.6
August	[2] 86.0	134	90	330	102.4	89	322.9	82.9	60.8
September	[2] 85.9	136	91	332	102.3	89	329.6	188.9	61.8
October	[2] 85.6	139	92	342	102.8	93	351.3	194.0	63.3
November	[2] 86.2	139	91	348	103.1	92	----	193.6	62.7
December	[2] 86.2	139	91	354	103.4	93	----	191.9	62.5
1936									
January	[2] 86.6	----	----	359	103.6	92	----	191.8	----
February	85.8	----	----	----	----	----	----	----	----

[1] Paper revised.
[2] New gold parity.
[3] Department of Commercial Intelligence and Statistics.

Index Numbers of Wholesale Prices in the United States and in Foreign Countries—Continued

Country	New Zealand (revised)	Norway	Peru	Poland	South Africa	Sweden	Switzerland	United Kingdom	Yugoslavia
Computing agency	Census and Statistics Office	Central Bureau of Statistics	Central Bank of Reserve	Central Office of Statistics	Office of Census and Statistics	Board of Trade	Federal Labor Department	Board of Trade	National Bank
Base period	1909–13 (1000)	1913 (100)	1913 (100)	1928 (100)	1910 (1000)	1913 (100)	July 1914 (100)	1930 (100)	1926 (100)
Commodities	180	95	(Paper) 58	238	188	160	77	[6] 200	55
1926	1553	----	203.2	----	1387	149	144.5	----	100.0
1927	1478	----	202.6	----	1395	146	142.2	----	103.4
1928	1492	157	191.9	100.0	1354	148	144.6	----	106.2
1929	1488	149	185.7	96.3	1305	140	141.2	----	100.6
1930	1449	137	178.0	85.5	1155	122	126.5	100.0	86.6
1931	1346	122	175.1	74.6	1119	111	109.7	87.8	72.9
1932	1297	122	170.3	65.5	1032	109	96.0	85.6	65.2
1933	1308	122	180.2	59.1	1047	107	91.0	85.7	64.4
1934	1330	124	188.1	55.8	1143	114	89.8	88.1	63.2
1934									
January	1336	120	186.8	57.8	1193	112	91.8	88.8	62.9
February	1339	122	186.6	57.6	----	112	91.4	89.2	63.6
March	1340	122	184.1	57.3	----	112	90.9	88.2	63.3
April	1332	123	187.4	56.8	1171	113	89.6	87.7	63.0
May	1340	123	187.8	56.0	----	113	89.0	87.2	64.1
June	1337	123	189.8	55.8	----	114	89.0	87.9	65.6
July	1336	124	188.8	55.9	1102	114	88.9	87.3	62.8
August	1342	127	191.4	55.8	----	114	89.8	89.0	61.1
September	1337	126	190.9	55.0	----	114	89.1	88.4	63.2
October	1338	127	187.9	54.4	1109	114	89.6	87.8	63.6
November	1340	126	187.0	53.6	----	115	89.4	87.5	62.7
December	1338	125	185.3	53.4	----	115	89.0	87.8	62.3
1935									
January	1345	125	186.3	52.7	1074	115	88.3	88.3	64.5
February	1360	125	188.2	52.2	----	115	87.6	88.0	63.9
March	1365	126	191.2	52.1	----	115	86.4	86.9	63.0
April	1367	125	190.6	52.2	1044	115	87.1	87.5	62.9
May	1371	125	190.4	52.7	----	115	87.6	88.2	64.0
June	1382	126	191.5	52.6	----	116	88.6	88.4	63.9
July	1395	127	190.7	52.9	1069	116	89.9	88.0	63.3
August	1403	128	188.6	53.6	----	115	91.4	88.4	64.8
September	1430	128	186.7	54.2	----	115	92.2	89.6	67.8
October	1446	130	188.0	54.5	1080	117	93.3	91.1	70.0
November	1428	130	188.1	54.4	----	118	92.8	91.2	71.2
December	----	131	189.3	52.7	----	118	92.1	91.4	71.6
1936									
January	----	----	----	52.2	----	----	91.1	91.8	----
February	----	----	----	----	----	----	----	----	----

[6] Revised for commodities since January 1930.

Conference on Price Research [1]

ON NOVEMBER 29–30, 1935, a conference of persons interested in price research was held at the National Bureau of Economic Research, in New York. The meeting was called by that bureau, in accordance with a resolution adopted at an earlier conference, to examine the objectives of price studies, to explore the possibilities of cooperative action, and to consider the formulation of a program of research. After a survey of the chief types of price research now in progress and a consideration of the purposes and objectives of price

[1] Statement prepared by Dr. Frederick C. Mills, National Bureau of Economic Research, chairman of Conference on Research. See Journal of the American Statistical Association, March 1936, "Cooperative Research on Prices."

research, the conference dealt at length with the gaps in the present program of price research, and with deficiencies of the data and measurements now available to students of prices. As regards the actual prosecution of research work, the members of the conference placed emphasis upon the desirability of preserving full freedom to the individual investigator, but were of the opinion that a continuing organization to further price research, to improve basic data, and to arrange for cooperative activity in selected cases would be of great service to economists and to business interests.

A resolution was passed providing that the Conference on Price Research be constituted a continuing body, consisting of institutions especially interested in price research. The initial membership includes the departments of economics of the Universities of Pennsylvania, Chicago, Minnesota, Harvard, and Columbia, the U. S. Bureau of Labor Statistics, the U. S. Bureau of Agricultural Economics, the Central Statistical Board, the Food Research Institute of Stanford University, and the National Bureau of Economic Research. It is expected that other institutions actively interested in the field of research will become members of the conference.

The Conference appointed an Executive Committee, with the following membership: F. C. Mills, National Bureau of Economic Research, chairman; Anne Bezanson, University of Pennsylvania; J. D. Black, Harvard University; R. M. Burgess, Western Electric Co.; F. B. Garver, University of Minnesota; Henry Schultz, University of Chicago; and S. W. Wilcox, United States Bureau of Labor Statistics. The National Bureau of Economic Research was requested to serve as the agent of the Conference in receiving and handling funds.

In the discussion of specific opportunities for cooperative research, there was general agreement that positive action should be taken to promote the study of actual price changes (in relation to changes in quality and design), cost movements, and price-making policies in particular industries and in distributive enterprises. It was recognized that some of the gravest gaps in our knowledge of economic processes are due to inadequacies of data and of analysis respecting costs, prices, and pricing under the conditions actually prevailing in industry and trade today. For the success of such studies the active cooperation of accountants, engineers and business men familiar at first hand with pricing procedures will be required. A conference of representatives of these groups and of interested economists will be called by the Executive Committee of the Price Conference.

It is hoped that this conference may assist in the formulation of a general program of research on the price problems of industry and trade, a program that will enlist the interest and the resources of various universities and governmental agencies, private research institutions, and business organizations.

RECENT PUBLICATIONS OF LABOR INTEREST

February 1936

Child Labor

Child labor under the N. R. A. as shown by employment certificates issued in 1934. Washington, U. S. Bureau of Labor Statistics, 1936. 15 pp., charts. (Serial No. R. 319, reprint from December 1935 Monthly Labor Review.)

Annual report of the general secretary of the National Child Labor Committee, for the year ending September 30, 1935. New York, National Child Labor Committee, 419 Fourth Avenue, 1935. 15 pp., charts, mimeographed.

Handbook on the Federal child labor amendment. New York, National Child Labor Committee, 419 Fourth Avenue, 1935. 63 pp., charts. (Publication No. 368.)

Contains a history of the Federal child-labor amendment and a review of the conditions from which it resulted; a list of organizations and interests supporting and opposing the amendment; and brief rebuttals of arguments against it.

Cooperative Movement

Financing American cotton production and marketing in the United States. Bibliography, compiled by Mildred C. Benton. Washington, U. S. Bureau of Agricultural Economics, November 1935. 45 pp., mimeographed. (Agricultural Economics Bibliography No. 61.)

Contains references to material on cooperative marketing of cotton.

Economic and Social Problems

Balancing the economic controls. By Russell A. Stevenson and Roland S. Vaile. Minneapolis, University of Minnesota Press, 1935. 86 pp.

This contribution to the growing literature on economic planning and control has special interest to those concerned with labor because it is based in part on the extensive studies (begun in 1931) of the Employment Stabilization Research Institute of the University of Minnesota.

Economics of planning public works. By John Maurice Clark. Washington, National Planning Board of the Federal Emergency Administration of Public Works, 1935. 194 pp.

The author develops the theory that public works may furnish a real stimulus to business in a period of depression, but that such work by itself may not be depended upon to bring business revival.

Government finance in the modern economy. Philadelphia, American Academy of Political and Social Science, 1936. 313 pp. (The Annals, Vol. 183, Jan. 1936.)

This issue of The Annals includes the following articles: Financing social security, by Abraham Epstein; New Deal costs and the high cost of living, by Gilbert H. Montague; The prospect of rising prices from the monetary angle, by Edwin Walter Kemmerer.

The depression experience of savings and loan associations in the United States. By Morton Bodfish. [Chicago, Morton Bodfish, 104 S. Michigan Avenue], 1935. 31 pp. (Reprint of address delivered in Salzburg, Austria, before Fifth International Congress of Savings, Building, and Loan Associations, etc., September 1935.)

The Goodwill Industries. A history of the movement, departmental methods of work, religious and cultural activities, administration and organization. Boston, Morgan Memorial Goodwill Press, 1935. 217 pp., folders, illus.

Intended for the guidance of groups desiring to undertake the formation of Goodwill activities—fostering of industries providing employment for the handicapped.

Current practices in intake and service in family welfare organizations. A study of the experience of eight agencies in 1934–35, by Helen Leland Witmer and students. Northampton, Mass., Smith College School for Social Work, 1935. 109 pp. (Smith College Studies in Social Work, Vol. VI, No. 2.)

High light report on a study of private group work agencies of Cleveland, together with their relationship to other leisure time agencies. By Eugene T. Lies. Cleveland, Welfare Federation of Cleveland, 1900 Euclid Ave., 1935. 73 pp., charts, mimeographed.

Describes the organization and work of the various welfare agencies in Cleveland, and lists the recreational and educational facilities of that city. The number of participants in various group activities and the unit costs of the different agencies, based on gross attendance and on membership or regular activity in relation to expenditures, are shown. There is a section on the problems presented by commercial amusement places.

Occupational opportunities and the economic status of recent graduates (1928–1934) of Purdue University. A report prepared by Edward C. Elliott, Frank C. Hockema, and Jack E. Walters. Lafayette, Ind., Purdue University, [1935]. 24 pp., charts.

Out of more than 2,000 graduates who replied to a questionnaire sent out in a survey in the fall of 1934, 91.3 percent were employed—89 percent in gainful occupations, while the remaining 2.3 percent included 100 housewives and 19 graduate students.

Proceedings of the 1935 Indiana State Conference on Social Work. Indianapolis, Indiana Department of Public Welfare, 1935. 96 pp. (Indiana Bulletin of Charities and Correction No. 220.)

Among the social questions considered by the conference, of particular interest to labor, were social insurance and various phases of recreation.

Report of Commissioner for the Special Areas, Scotland, December 21, 1934, to June 30, 1935. Edinburgh, 1935. 34 pp. (Cmd. 4958.)

A preliminary report upon activities in the administration of funds for the economic rehabilitation of certain parts of Scotland classed as "depressed."

Scotland, that distressed area. By George Malcolm Thomson. Edinburgh, Porpoise Press, 1935. 127 pp., charts.

A discussion of the decline of population, national income, production, and employment in Scotland in the years preceding the economic slump of 1930, the aggravating effects of the slump, and the possibilities of rehabilitation.

First report of Commissioner for the Special Areas, England and Wales. London, 1935. 106 pp. (Cmd. 4957.)

This report covers the activities of the first six months under the Special Areas Act, and the administration of a fund provided for the purpose of facilitating the economic development and social improvement of portions of England and Wales most severely affected by the depression.

Report of the subcommittee on the unemployable blind, Advisory Committee on the Welfare of the Blind. London, Ministry of Health, 1935. 22 pp.

On March 31, 1934, the total registered blind population of England and Wales was 64,842, of whom 51,253, or 79 percent, were unemployable. The report discusses the establishment of homes for the blind, reduction of age at which pension may be paid, and regulations for the administration of financial assistance.

Sozialpolitik im Dritten Reich. By Franz Seldte. Berlin, Reichs- und Preussischen Arbeitsministerium, 1935. 68 pp., illus. (Beilage zum Reichsarbeitsblatt, 1935, Nr. 36.)

Deals with the social policies of the present government in Germany, including the creation of employment opportunities, housing, social insurance, and welfare work.

Education

Annual directory and program of agricultural education [in Illinois], 1935–1936. Springfield, Board for Vocational Education, 1935. 51 pp., map, illus. (Bul. No. 64.)

In 1935 the total number of vocational agricultural schools in Illinois was 253 with an enrollment of 8,123.

Summaries of studies in agricultural education. An annotated bibliography of 373 studies in agricultural education with a classified subject index and a general evaluation. Washington, U. S. Office of Education, June 1935. 196 pp. (Vocational Education Bul. No. 180, Agricultural Series No. 47.)

Bibliography of research studies in education, 1933–1934. Prepared by Ruth A. Gray. Washington, U. S. Office of Education, Library Division, 1935. 328 pp. (Bulletin, 1935, No. 5.)

Some of the references are on the following subjects: Industrial education, including industrial arts; teachers' salaries, pensions, and retirement; vocational guidance; Negro education; and the education of various physically handicapped groups.

Bibliography on foreman improvement. A selected and annotated list of references, including books, pamphlets, and magazine articles. Washington, U. S. Office of Education, 1935. 34 pp. (Vocational Education Bul. No. 128, Trade and Industrial Series No. 35.)

Problems of vocational guidance. Geneva, International Labor Office, 1935. 183 pp. (Studies and Reports, Series J, No. 4.) (American agent: World Peace Foundation, Boston.)

The definition and history of vocational guidance are given in the first chapter of the report. Other subjects discussed are the regulation, organization, medical aspects, methods, and special branches of vocational guidance, and occupational analysis.

Ninth biennial report on vocational education in Mississippi, for the biennial period ending June 30, 1935. Jackson, State Board for Vocational Education, [1935?]. 102 pp., maps, illus. (Bul. No. 82, Vocational Series No. 31.)

In the biennium covered by the report the high-school vocational-education departments in Mississippi numbered 574 and had an annual enrollment of 37,315.

Private proprietary and endowed schools giving trade and industrial courses. By Maris M. Proffitt. Washington, U. S. Office of Education, 1935. 91 pp. (Bulletin, 1935, No. 8.)

The schools listed in this directory range from those of elementary grade, offering a few basic industrial courses, to schools of college grade which also include some courses of less than college grade.

Suggestions for organizing evening school classes in trade and industrial education. Springfield, Illinois State Board for Vocational Education, 1935. 25 pp., mimeographed. (Bul. No. 63.)

Prepared to furnish superintendents, principals, and teachers with data which will aid them in organizing evening classes as provided under the Smith-Hughes and George Ellzey Acts and the State plan for vocational education. The hope is expressed in the introduction that the pamphlet will also suggest ways, that might otherwise be overlooked, in which evening schools may be of service to adults.

Efficiency

Incentives—some experimental studies. By C. A. Mace. London, Industrial Health Research Board, 1935. 61 pp., diagrams. (Report No. 72.)

In this study, a group of university students were subjects in tests designed to show the effects of various incentives upon efficiency. The incentives were essentially academic in character, but the conclusions reached were considered applicable, to a certain extent, to conditions of industrial work.

Employment and Unemployment

Bituminous coal tables, 1934. By L. Mann, W. H. Young, and F. G. Tryon. Washington, U. S. Bureau of Mines, 1935. Various paging, mimeographed.

Data on employment and productivity, taken from these tables, are given in this issue of the Monthly Labor Review.

Does the provision of employment necessitate money expenditure? The financing of public works, without recourse to the money market, as proposed in the Milhaud Plan; with remarks on the latter, by Ulrich V. Beckerath. Geneva, Switzerland, 1935. 264 pp. (In Annals of Collective Economy, April-August 1935.)

A discussion of a scheme to carry on public works by floating large loans subscribed with purchasing certificates which subscribers to such loans would accept in their factories or shops at par. The State would also agree to the payment of taxes with such certificates.

The employment characteristics of new applicants at the Philadelphia State Employment Office, 1934. By Gladys L. Palmer. Philadelphia, 1935. 25 pp., charts, mimeographed. (Special Report A–6, University of Pennsylvania, Industrial Research Department, in cooperation with the Pennsylvania State Employment Service.)

Among the factors presented are tables showing marital status, number of dependents, duration of unemployment, race and nativity, age, and education, by occupational groups.

Premises, layout, and equipment of public employment offices. Washington, U. S. Employment Service, 1935. 46 pp., plans, illus. (Employment Office Manual Series, Section II.)

Reading list of references on household employment. Washington, U. S. Women's Bureau, 1936. 15 pp. (Bul. No. 138.)

A bibliography classified by special subjects, as standards of employmeut in domestic service, training and placement, and employment relations; and by special groups, as negro workers, middle-aged workers, etc.

Unemployment—an international problem. A report by a study group of members of the Royal Institute of National Affairs. London, Oxford University Press, 1935. 496 pp., charts.

Report of a survey of unemployment conditions throughout the world, the objective of which was to provide the necessary information for further study of national and international policies for the improvement of the situation.

Unemployment—Canada's problem. By C. P. Gilman and Huntly M. Sinclair. Ottawa, Army and Navy Veterans in Canada, 1935. 119 pp.

A study of the underlying causes of unemployment in Canada. The book constitutes an elaboration of a series of articles, printed in The Canadian Veteran, which were an outgrowth of an intensive study of the unemployment problem during recent years by the Research Bureau of the Army and Navy Veterans in Canada, originating in an effort to find a means of providing employment for war veterans.

Family Allowances

Annuaire permanent du Comité Central des Allocations Familiales. Paris, 31 Rue Guyot, 1935. 492 pp., illus.

The annual includes sections on objectives and composition of the Central Committee on Family Allowances; the administration and regulation of family-allowance funds; and legislation covering family allowances, maternity assistance, etc.

Homework

Compilation of homework provisions in approved codes. Washington, National Recovery Administration, Labor Advisory Board, 1935. 41 pp., mimeographed.

Lists the codes containing provisions dealing with industrial homework, and summarizes the terms by which homework was prohibited or regulated.

Housing

Methods for men-money-management and government—home building program. New York, Committee for Economic Recovery, 730 Fifth Avenue, [1936]. 16 pp.

The rebuilding of Manchester. By E. D. Simon and J. Inman. London, Longmans, Green and Co., 1935. 173 pp., maps, illus.

Since one of the chief tasks of the future will be the clearing and rebuilding of slum sections, the growth of Manchester, England, is traced over the past century, showing the broad outlines of at least one planning problem. In the latter part of the book, plans for the future are discussed, the question is raised as to whether cottages or flats are desirable in terms of use and expense, and the relative merits of private-enterprise and municipal building programs are discussed.

Report of the New York State Board of Housing. Albany, 1935. 72 pp., illus. (Legislative Doc., 1935, No. 41.)

Gives the reports of municipal housing authorities in New York State, statistics on financial status of projects under the State housing law and on maintenance costs and rentals of the housing board projects, and information on new projects.

What some slum dwellers want in housing. Findings of a study of one square block in the Lower East Side, New York City, under the direction of Duane V. Ramsey. New York, Henry Street Settlement, 1935. 10 pp.

Income

Agriculture's share in the national income. Washington, U. S. Agricultural Adjustment Administration, 1935. 37 pp., charts.

Includes figures on both national and agricultural income, prices, and farm and city buying power.

The national income produced, 1924–34. By Robert R. Nathan. Washington, U. S. Bureau of Foreign and Domestic Commerce, Division of Economic Research, 1935. 9 pp., charts. (Taken from article in Survey of Current Business, November 1935.)

Statistics of income for 1933. Compiled from income-tax returns and including statistics from estate-tax returns and gift-tax returns. Washington, U. S. Bureau of Internal Revenue, 1935. 270 pp.

Detailed information is made available on the number of returns filed and the amount of income represented by income classes.

Statistics of income for 1934. Preliminary report of individual income tax returns filed to August 31, 1935. Washington, U. S. Bureau of Internal Revenue, 1935. 9 pp.

Data on income reported for income-tax purposes and on national income for the year 1934, were published in the January 1936 Monthly Labor Review, the figures being from information issued by the Treasury and Commerce Departments.

Industrial Accidents, Health, and Hygiene

Accident costs and safety dividends. By D. Harrington. Washington, U. S. Bureau of Mines, 1935. 29 pp., mimeographed. (Information Circular 6855.)

Reviews economic aspects of accident occurrence in mines, on the basis of both direct and indirect costs, as compared with the costs of an adequate safety procedure.

Accidents in Tennessee coal mines. By Frank E. Cash. Washington, U. S. Bureau of Mines, 1935. 16 pp., mimeographed. (Information Circular 6864.)

Analyzes fatal accidents in coal mines of Tennessee and gives pertinent factors, with interpretations and suggestions to operators, workers, and the State Division of Mines, for the future prevention or reduction of accidents in coal mines.

Annual report of the Surgeon General, U. S. Public Health Service, for the fiscal year 1935. Washington, 1935. 158 pp., illus.

The section on industrial hygiene and sanitation contains a brief statement regarding studies carried out during the year. These studies included one on the effect of dust exposure on the health of miners in the anthracite coal field of Pennsylvania, one on silicosis and tuberculosis in certain mines, and others dealing with various phases of the dust problem.

The effects of exposure to dust in two Georgia talc mills and mines. By Waldemar C. Dreessen and J. M. Dallavalle. Washington, U. S. Public Health Service, 1935. 13 pp., illus. (Reprint No. 1669 from Public Health Reports, February 1, 1935, pp. 131–143.)

An examination showed 16 talc millworkers and 6 talc miners to be suffering from pneumonoconiosis, and 5 cases were also diagnosed as having tuberculosis. The occupations of drillers in the mines and of packermen, pencil cutters, and crushermen in the mills involve exposure to very high concentrations of dust.

The pneumonokonioses (silicosis), literature and laws of 1934. By George G. Davis, M. D., Ella M. Salmonsen, and Joseph L. Earlywine. Chicago, Chicago Medical Press, 302 South Canal St., 1935. 490 pp.

This review of the subject of silicosis includes abstracts, extracts, and reviews from American and foreign literature, and a digest by States of statutes and of cases pertaining to the law on occupational diseases in this country.

Review of literature on effects of breathing dusts, with special reference to silicosis. By D. Harrington and Sara J. Davenport. Washington, U. S. Bureau of Mines, 1935. Part II–B, chapter 4, Prevention of dust diseases (sections 3–5), 92 pp. (Information Circular 6848); Part III–A, chapter 5, Economic and legal aspects of dust disease in industry (sections 1 and 2), 57 pp. (Information Circular 6857.)

Industrial medicine. By W. Irving Clark, M. D., and Philip Drinker; edited by Morris Fishbein, M. D. New York, National Medical Book Co., Inc., 1935. 262 pp., charts, illus.

The subjects covered include a discussion of the organization and operation of an industrial medicine department, industrial surgery and medical service, and industrial diseases with special reference to dusts and pneumonoconiosis, lead and metal fume fever, gases, benzol, asphyxia, and artificial respiration. The final chapter deals with the prevention of industrial diseases. A bibliography is included.

Report of the departmental committee appointed by the [British] Secretary for Mines to inquire into the precautions against overwinding which are or could be taken when persons are raised or lowered in mine shafts. London, Mines Department, Overwind Prevention Committee, 1935. 44 pp., diagrams, illus.

The conclusions of the committee are that existing devices for the control of cages are insufficient. It recommends the adoption of a maximum landing speed, the installation of auxiliary controller devices, and compulsory periodic tests of controllers and brakes.

Industrial Relations

First annual report of the National Mediation Board, including the report of the National Railroad Adjustment Board, for the fiscal year ended June 30, 1935. Washington, [1935?]. 69 pp.

An article on the work of railway labor boards in 1934–35, based on this report, is published in this issue of the Monthly Labor Review.

Arbetsinställelser och kollektivavtal samt förlikningsmännens verksamhet år 1934. Stockholm, Sweden, Socialstyrelsen, 1935. 123 pp.

Annual report on industrial disputes, collective agreements, and conciliation in Sweden in 1934, with comparative data for earlier years. A French translation of the table of contents and a French résumé are included.

Employer-employee relations from the viewpoint of the employer, the employee, and the community. Addresses delivered at the industrial session, tenth anniversary New England Conference, Boston, November 22, 1935. Boston, New England Council, Statler Building, 1936. 16 pp. (Supplement to New England News Letter, Jan. 1936.)

Transcript of testimony before the New Jersey State Trade Board for the Cleaning and Dyeing Trade. [Trenton?], 1935. Various paging, mimeographed.

Evidence given at hearings held at various points in New Jersey under a State law enacted in 1935 creating a board empowered to fix minimum wages and prices for the cleaning and dyeing business.

Findings of fact and conclusions of the New Jersey State Trade Board for the Cleaning and Dyeing Trade on the evidence received by it at hearings held throughout the State of New Jersey * * *. [Trenton?], 1935. 24 pp., mimeographed.

The rulings handed down by this agency dealing with maximum hours and minimum wages were given in the January 1936 issue of the Monthly Labor Review.

Helping the foreman build better industrial relations. Ann Arbor, University of Michigan, Bureau of Industrial Relations, 1936. 10 pp.

A discussion of the foreman-training and employee-rating plan in use by a manufacturing company in the Middle West employing about 5,000 workers.

International Labor Organization

The ratification of international conventions. A study of the relationship of the ratification process to the development of international legislation. By Francis O. Wilcox. London, George Allen & Unwin, Ltd., 1935. 349 pp.

One chapter is devoted to the International Labor Organization.

Labor Legislation

Federal labor legislation in 1935. Washington, U. S. Bureau of Labor Statistics, 1935. 13 pp. (Serial No. R. 322, reprint from December 1935 Monthly Labor Review.)

Report of Industrial Legislation Commission of Union of South Africa. Pretoria, 1935. 189 pp.

Existing conditions are analyzed and the history of labor legislation reviewed as a basis for the recommendations made by the Industrial Legislation Commission. Subjects dealt with include wages, wage differentials and wage fixing, enforcement of labor laws, and punishment for contraventions of the laws.

Labor Organization

Berättelse över Landsorganisationens i Sverge verksamhet 1934, avgiven till representantskapets årsmöte den 7–9 maj 1935. Stockholm, Landsorganisationen i Sverge, 1935. 371 pp., charts.

Annual report of the Federation of Swedish Trade Unions for 1934 with comparative data for earlier years. The affiliated membership in December 1934 was 653,331, an increase of 19,980 over December 1933. The report includes information on wages, working hours, industrial disputes and their outcome, collective agreements, unemployment, etc.

National questions discussed at 1935 convention of American Federation of Labor. Washington, U. S. Bureau of Labor Statistics, 1935. 7 pp. (Serial No. R. 323, reprint from December 1935 Monthly Labor Review.)

Labor Turn-Over

Standard procedure for computing labor turn-over. Washington, U. S. Bureau of Labor Statistics, 1935. 3 pp. (Serial No. R. 330, reprint from December 1935 Monthly Labor Review.)

Negro in Industry

Some major aspects of the economic status of the Negro. By John P. Murchison. 5 pp. (Reprinted from Social Forces, Baltimore, October 1935, pp. 114–119.)

Presents 1930 census figures and May 1934 Federal Emergency Relief statistics bearing upon the economic status of the Negro, and discusses the more insistent economic problems of the race under the recovery program. The author also sets forth reasons which, in his judgment, forbid the solution of the Negro's economic difficulties by "any kind of tie-up with organized craft unionism in the United States."

Occupation Changes

Summary of changes in the occupational pattern of New York State. By Bradford F. Kimball. Albany, State Education Department, 1935. 12 pp., chart, mimeographed.

Prices and Cost of Living

Changes in cost of living, October 15, 1935. Washington, U. S. Bureau of Labor Statistics, 1936. 23 pp., chart. (Serial No. R. 329.)

Scale for estimating minimum budgets for dependent and independent families. Detroit, Mich., Visiting Housekeeper Association, May 1, 1935. 3 pp., mimeographed.

What becomes of the consumer's meat dollar? By Bernard F. Tobin and Howard C. Greer. Chicago, University of Chicago, 1936. 100 pp., charts. (Studies in the Packing Industry.)

An analysis of the price of meat showing the return to the farmer and the various distributive agencies, losses in handling, and ratio of waste to meat obtained from animals.

Recreation

First annual report of Chicago Recreation Commission. Chicago, 1935. 16 pp.

This pamphlet contains brief reports of the various committees appointed to deal with different phases of recreation in Chicago. The results of a survey of recreational facilities will be published later.

Relief Measures and Methods

Fifth annual report upon the operations and proceedings under "the [Queensland, Australia] Income (Unemployment Relief) Tax Acts (1930 to 1935)" for the year ended June 30, 1935. Brisbane, Department of Labor, 1935. 65 pp., illus.

A review of the methods of raising funds for unemployment relief and the expenditures made for such purposes.

Statistique annuelle des institutions d'assistance, 1932. Paris, Statistique Générale de la France, 1935. lxiv, 71 pp.

This report for the year 1932 of French public-assistance organizations contains statistics covering pensions for old-age and permanent invalidity, medical and hospital assistance in cases of temporary sickness, maternity and infant care, and assistance to large families.

Self-Help Activities

Self-help among the unemployed in California. Washington, U. S. Bureau of Labor Statistics, 1935. 6 pp. (Serial No. R. 320, reprint from December 1935 Monthly Labor Review.)

Summary of proposed plan for self-help cooperatives in California, 1936. [Sacramento?], State Emergency Relief Administration, Division of Self-Help Cooperative Service, 1935. 35 pp., mimeographed.

Social Security

Bibliography: Legislation for old-age security. Princeton, N. J., Princeton University, Industrial Relations Section, November 13, 1935. 7 pp., mimeographed.

Statistical implications of the social security program. By Meredith B. Givens. (Reprint from Journal of American Statistical Association, Albany, N. Y., December 1935, pp. 651–661.)

Unemployment compensation. Hearings (74th Cong., 1st sess.) before the Subcommittee on Fiscal Affairs, Committee on the District of Columbia, House of Representatives, March 1935, on H. R. 5534, and on H. R. 7167 (substitute for H. R. 5534). Washington, 1935. 115 and 10 pp., respectively.

Unemployment compensation for the District of Columbia. Washington, House of Representatives, Committee on the District of Columbia, 1935. 22 pp. (Report No. 858, to accompany H. R. 7167, 74th Cong., 1st sess.)

Allmänna pensionsförsäkringen, år 1934. Stockholm, Sweden, Pensionsstyrelsen, 1935. 18 pp. (In Swedish, with table of contents and résumé in French.)

Data on old-age pensions in Sweden in 1934, taken from this report, are given in this issue of the Monthly Labor Review.

Rapport sur le fonctionnement de l'Office Général des Assurances Sociales, des Offices Supérieurs, des Offices d'Assurance et du Comité des Rentes de l'Assurance des Employés durant l'année 1934. Compte rendu des opérations des Caisses

d'Assurances Sociales pendant l'année 1933. Strasbourg, Office Général des Assurances Sociales d'Alsace et de Lorraine, 1935. 173 pp. (Buls. Nos. 10 and 11, October–November 1935.)

Annual report of the social insurance offices of Alsace and Lorraine.

Das Recht in der Reichsversicherung. Herausgegeben von Eugen Munder. Stuttgart, W. Kohlhammer, 1935. [Various paging.]

Laws, orders, and decisions relating to social insurance in Germany in 1935.

Syketrygden, 1934. Oslo, Rikstrygdeverket, 1935. 78 pp., folder.

Annual report of the sickness-insurance funds in Norway during 1934, showing membership, claims paid, and financial statements, including a table showing expenditures by years from 1927 to 1934. Printed in Norwegian with French translation of table of contents.

Wages and Hours of Labor

Lönestatistisk årsbok för Sverige, 1934. Stockholm, Socialstyrelsen, 1935. 94 pp., map, charts.

Annual report on wages in Sweden in 1934, with some comparative figures for each year back to 1913. There is a French translation of the table of contents and a résumé in French.

Report of proceedings under the Agricultural Wages (Regulation) Act (1924) for the year ended September 30, 1934. London, Ministry of Agriculture and Fisheries, 1935. 64 pp.

Minimum-wage determinations for agricultural laborers as fixed by district agricultural wage committees, and reports of investigations of complaints and inspections made to determine extent of compliance with minimum-wage and holiday rulings fixed by the wages boards.

Report on wages, hours of work and conditions of employment in the engineering industry in the Bombay Presidency (excluding Sind), May 1934. Bombay, Labor Office, 1935. 179 pp., illus. (General wage census, Part I, Perennial Factories.)

Women in Industry

Employed women under N. R. A. codes. By Mary Elizabeth Pidgeon. Washington, U. S. Women's Bureau, 1935. 144 pp., map, charts. (Bul. No. 130.)

Improved standards, a more enlightened point of view toward the employment of women, and "popular realization of the importance not alone to the individual employee but to the entire scheme of American life of definite advances in wage and hour standards for wage earners," are, the Women's Bureau believes, the permanent achievements of the N. R. A. so far as women are concerned. From that viewpoint the Bureau has compiled a report on the experience of employed women during the life of the N. R. A. codes. This report analyzes the code provisions applying to women in the principal woman-employing industries and in office work, and reviews studies that have been made showing earnings, hours, and working conditions in selected occupations and industries, before and after the adoption of the codes. Definite advance in wage standards, increased earnings, particularly of the lowest-paid groups, and the narrowing of the spread between the wage rates of men and women were accomplished, and progress was made toward the establishment of a 40-hour work week for women.

At the same time the report points out and critically analyzes features of the codes which the Women's Bureau regards as serious defects, shortcomings, and omissions, detracting from their value as standard-setting agencies.

Workmen's Compensation

The added responsibility in industry by recent occupational disease legislation. By Henry D. Sayer. New York, Association of Casualty and Surety Executives, 1 Park Avenue, 1935. 10 pp.

Address delivered at the occupational-disease session of the annual meeting of the American Society of Mechanical Engineers, December 4, 1935.

Workmen's compensation and social insurances. By F. Robertson Jones. New York, Association of Casualty and Surety Executives, 1 Park Avenue, 1935. 11 pp.

Address delivered at the annual meeting of the American Society of Mechanical Engineers, December 4, 1935.

Biennial report reviewing the administration of the Virginia Compensation Act, 1933–34. Richmond, Industrial Commission of Virginia, 1935. 16 pp.

Awards for industrial injuries in Virginia included 129 fatal cases in 1934 as against 93 in 1933. Nonfatal cases involving awards numbered 6,798 n 1934 and 6,291 in 1933. Compensation payments incurred for 1934, including estimated medical expense, amounted to $1,537,190, and for 1933, to $1,267,910. Tabulations in the report show number and cost of compensation cases by industry and cause of injury, and man-hours and injury frequency rates for various industries.

Industrial accident report of the New Jersey Department of Labor. Compensable cases closed during year ending December 31, 1934. Trenton, 1935. 17 pp., mimeographed.

Tabulations for the calendar year 1934 show number of compensated industrial accidents by causes, nature of injuries, industrial group, sex, and age. Occupational disease data by causes are also given. Total compensated accidents for 1934 numbered 18,537, including 202 fatalities, 10 cases of permanent total disability, 5,586 permanent partial disabilities, and 12,739 temporary disabilities. Compensation cost totaled $4,407,962, and medical cost reported for 5,463 cases amounted to $410,376.

Nineteenth annual report of the U. S. Employees' Compensation Commission, July 1, 1934, to June 30, 1935. Washington, 1936. 74 pp.

Reviewed in this issue.

Statistics of workmen's compensation, 1933. Dublin, Irish Free State, Department of Industry and Commerce, 1935. 16 pp.

Presents information furnished by cooperating insurance companies covering a field of inquiry limited to certain industry groups (factories under the Factories and Workshop Act, railways, harbors and docks, mining and quarrying, construction, shipping). Twenty-eight fatal accidents were compensated in 1933 as against the same number in 1932. Nonfatal accident cases compensated in 1933 numbered 4,078 as compared with 3,779 in 1932. The industrial disease cases compensated included 1 fatality and 6 nonfatal cases in 1933, and 7 cases, all nonfatal, in 1932. Total compensation for all cases covered by this study, including industrial disease, amounted to £97,249 in 1933 and £90,774 in 1932.

Youth Problems

Organizations for youth: Leisure time and character building procedures. By Elizabeth R. Pendry and Hugh Hartshorne. New York, McGraw-Hill Book Co., Inc., 1935. 359 pp.

A collection of brief accounts of the history, organization, programs, philosophy, methods, and incentives to youth of 40 leisure-time agencies, and procedures concerned directly or indirectly with character building.

Työläisnuorisotutkimus. Helsinki, Finland, Sosialiministeriö, 1935. 209 pp.

Report on young workers in Finland, including information on wages, housing, health conditions, physical development, schooling, etc. (In Finnish and Swedish, with French table of contents and résumé in French.)

General Reports

Annual report of the Secretary of Labor, for the fiscal year ended June 30, 1935. Washington, 1936. 134 pp.

In addition to reviewing the work of the several branches of the Department of Labor, the report presents statistics and information pertaining to the various fields covered.

Report of the Secretary of Agriculture, 1935. Washington, 1935. 120 pp.

Includes discussion of farm income and land utilization.

Annual reports of the Colorado State Inspector of Coal Mines, 1931 to 1934 inclusive. Denver, 1935. 193 pp., folder.

Data accumulated during the 4-year period 1931–34 are combined in this report, which covers production, employment, and accident statistics in the coal mines of Colorado.

American petroleum industry. A survey of the present position of the petroleum industry and its outlook toward the future. New York, American Petroleum Institute, 50 West 50th Street, 1935. 229 pp., charts.

One chapter is devoted to labor in the petroleum industry. The figures in this section, many of which are from reports of the U. S. Bureau of Labor Statistics, cover employment, wages and hours, strikes, labor turn-over, and accidents.

References on the mountaineers of the southern Appalachians. By Everett E. Edwards. Washington, U. S. Department of Agriculture Library, December 1935. 148 pp., mimeographed. (Bibliographical Contributions No. 28.)

A general bibliography including references to material on labor conditions, occupations and industries (including handicrafts), education, land utilization, and housing. An index by author and subject is appended.

Summary of Australian production statistics for the years 1923–24 to 1933–34. Canberra, Bureau of Census and Statistics, 1935. 155 pp.

Statistics of production are classified under various agricultural pursuits, mining, manufacturing, and construction. Under mining, employment and accident statistics are included, and under manufacturing, employment and wage statistics are shown.

Report of chief inspector of factories and shops, Victoria, Australia, for the year ended December 31, 1934. Melbourne, Department of Labor, 1935. 32 pp.

Contains statistics of accidents, summaries of new legislation, and information on number of employees, hours of work, and decisions of wage boards.

Report of director of labor and chief inspector of factories and shops, Queensland, Australia, for year ended June 30, 1935. Brisbane, Department of Labor, 1935. 58 pp.

One section of the report gives statistics of employment, unemployment, unemployment insurance payments, and earnings of certain groups of workers.

The Dominion Bureau of Statistics—its origin, constitution, and organization. Ottawa, Canada, [Bureau of Statistics?], 1935. 88 pp., maps, charts, illus.

Report of the Department of Labor of Canada for the fiscal year ending March 31, 1935. Ottawa, 1935. 84 pp.

In addition to reviewing the work of the Department of Labor during the year covered, the report contains data on industrial disputes, operations under the Industrial Disputes Investigation Act, wages and hours of labor, fair wages policy, prices and cost of living, industrial accidents, labor organization, work of employment offices, unemployment, relief expenditures, old-age pensions, and government annuities. Some of the data on old-age pensions and government annuities are given in this issue of the Monthly Labor Review.

Fourth annual report of the Minister of Welfare and Municipal Affairs, Province of Ontario, 1933–34. Toronto, 1935. 120 pp.

Includes information on old-age pensions, mothers' allowances, training schools, industrial schools, unemployment relief, etc.

Suomen tilastollinen vuosikirja, 1935. Helsingfors, Finland, Tilastollisessa Päätoimistossa, 1935. 382 pp. (In Finnish, Swedish, and French.)

Statistical yearbook for Finland. Among the many topics covered are employment and unemployment, work of employment offices, wages of agricultural and railroad workers, strikes and lockouts, labor organization, industrial accidents, retail prices, index numbers of wholesale prices and cost of living, building construction, production, and public assistance. An international section gives statistics on labor disputes, labor organization, unemployment, and index numbers of wholesale prices and cost of living in various countries. The data presented in the volume are mainly for 1934 and earlier years, although on a few topics, notably unemployment, prices, and cost of living, figures are given for 1935.

Economic conditions in 'Iraq, 1933–35. By J. P. Summerscale. London, Department of Overseas Trade, 1936. 41 pp., map.

A brief discussion of labor matters is included.

Annual report on the working of the Malta Department of Labor during 1934–35. Valletta, 1935. 14 pp.

Workmen's compensation and employment are the main subjects covered in the report. Under the new workmen's compensation law, effective August 20, 1934, registration was made compulsory for all wage earners from the age of 14 years. The financial report of the Workmen's Compensation Fund for the fiscal year ending March 31, 1935, shows that of the total receipts for the year, 66 percent were paid out in accident compensation, 31.7 percent were expended for administration, and 2.3 percent were carried forward. For the calendar year 1934, compensated accidents and industrial diseases totaled 4,727, of which 8 were fatal and 4,719 nonfatal. Compensation payments for the calendar year 1934 amounted to £5,607 7s. 7d., as against £4,922 11s. 7d. in 1933.

Centraal verslag der arbeidsinspectie in het Koninkrijk der Nederlanden over 1934. Hague, Departement van Sociale Zaken, 1935. 323 pp., charts, illus.

Annual report on labor inspection in the Netherlands during 1934, including information on labor legislation, child labor, safety measures and devices, industrial accidents, and occupational diseases. An 8-page summary in English, printed separately, accompanies the report.

Annuaire statistique, Royaume de Yougoslavie, 1933. Belgrade, Statistique Générale d' Etat, 1935. 477 pp. (In Serbian and French.)

A general statistical annual, including data on employment, work of employment offices, industrial accidents, industrial disputes, violations of labor regulations, social insurance, and cooperative societies.

Mélanges offerts à Ernest Mahaim par ses collègues, ses amis, ses élevès. Tome I, Sciences économiques et sociales; Tome II, Sciences juridiques. Paris, Librairie du Recueil Sirey, 1935. 2 vols.

Symposium, including papers on cooperative enterprises undertaken by public authorities; labor legislation on various subjects (labor contracts in France, family allowances in Belgium, unemployment insurance in Belgium, domestic service, etc.); and the International Labor Organization.

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